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Proposed Owyhee Resource Management Plan and Final Environmental Impact Statement

July, 1999 • Volume 1 (of 3)

99-027538

U.S. Department of the Interior • Bureau of Land Management
Lower Snake River District • Boise Field Office

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Lower Snake River District
Boise Field Office
3948 Development Avenue
Boise, Idaho 83705-5389
http://www.id.blm.gov

In Reply Refer To:
1600 Owyhee RMP

July 2, 1999

Dear Public Land User:

Enclosed is the Owyhee Proposed Resource Management Plan (RMP) and Final Environmental Impact Statement (EIS) for the Owyhee Resource Area. The Owyhee Resource Area located in southwestern Idaho's Owyhee County encompasses 1,779,492 acres with 1,320,032 acres of public land managed by the Bureau of Land Management (BLM). A planning effort has been undertaken to provide the Bureau of Land Management, Lower Snake River District with a comprehensive framework for managing these public lands. The purpose of the RMP is to ensure public land use is planned for and managed in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA), and is consistent with the principles of multiple-use and sustained yield.

The Final EIS describes and analyzes five alternatives for managing public lands in the Owyhee Resource Area. The Proposed Owyhee Resource Management Plan is Alternative E, the agency preferred alternative. It was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document.

Persons interested in protesting the Proposed RMP must do so by close of business 30 days after the Notice of Availability is published in the Federal Register. The protest period will end on August 2, 1999. See "Protest Procedures" on the following pages for detailed protest information.

The RMP will be approved following the 30-day protest period, resolution of any protests, review of any comments on the EIS, and the Governor of Idaho's consistency review. The Record of Decision for the approved Resource Management Plan will then be prepared.

Thank you for your interest in public land management.

Sincerely,

Daryl L. Albiston
Owyhee Area Manager

PROTEST PROCEDURES

The public has the opportunity to protest the Owyhee Proposed Resource Management Plan, which is Alternative E in the final EIS. The BLM Planning Regulations, 43 CFR 1610.5-2, state that any person who participated in the planning process and has an interest which may be adversely affected may protest. A protest may raise only those issues which were submitted for the record during the planning process. The protest shall be filed within 30 days of the date the Environmental Protection Agency publishes the notice of receipt of the final EIS in the Federal Register.

All protests must be filed (postmarked) by August 2, 1999.

All protests shall be filed with:

Director, Bureau of Land Management
Attention: Ms Brenda Williams, Protests Coordinator
WO-210/LS-1075
Department of the Interior
Washington, D.C. 20240

The Overnight Mail address is:

Director, Bureau of Land Management
Attention: Ms Brenda Williams, Protests Coordinator (WO-210)
1620 L Street, N.W., Rm. 1075
Washington, D.C. 20036 [Phone: 202/452-5110]

To expedite consideration, in addition to the original sent by mail or overnight mail, a **copy of the protest** may be sent by: FAX to 202/452-5112; or E-mail to bhudgens@wo.blm.gov.

Protests filed late, or filed with the State Director, or District, Field or Area Manager, shall be rejected.

There is no provision for any extension of time for the 30-day protest period provided in the Planning Regulations.

Resolution of protests is entirely the province of the Director of BLM, whose decision is the final decision of the Department of the Interior.

PROTEST PROCEDURES (Cont.)

The Planning Regulations, 43 CFR 1610.5-2, state that the protest shall contain:

1. The name, mailing address, telephone number and interest of the person filing the protest;
2. A statement of the issue or issues being protested;
3. A statement of the part or parts of the plan being protested;
4. A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record;
5. A concise statement explaining why the State Director's decision is believed to be wrong.

Adherence to these points will assist in preparing a protest that will assure the greatest consideration of your point of view.

Confidentiality

Comments, including names and addresses of respondents, will be retained on file in the Lower Snake River District Office as part of the public record for the Owyhee planning effort. Individual respondents may request confidentiality. If you wish to withhold your name or address from public inspection or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials or organizations or businesses, will be made available for public inspection in their entirety.

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Proposed Owyhee Resource Management Plan
and
Final Environmental Impact Statement

Responsible Agency: United States Department of the Interior
Bureau of Land Management

Status: Draft ( ) Final (X)

Action: Administrative (X) Legislative ( )

Location: Owyhee County, Idaho

Abstract: The Owyhee Resource Area land use planning effort has identified five alternatives for managing 1.3 million acres of public land in southwest Idaho. These alternatives are described and analyzed in this final EIS. Alternative A is a continuation of current management and is the "No Action" Alternative. Alternative B was developed through BLM staff interpretation and analysis of information submitted by the Owyhee County Commissioners with the assistance of the Owyhee County Natural Resources Committee. Alternative C was developed by the BLM Lower Snake River District interdisciplinary planning team. Alternative D was developed through BLM staff interpretation and analysis of information submitted by the Desert Group. Alternative E, the agency preferred alternative, was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document. Alternative E is the Proposed Owyhee Resource Management Plan (RMP).

The final document includes consideration of 20 areas for Area of Critical Environmental Concern (ACEC) designation. Suitability of wild, scenic and recreational designations on 223 miles of stream segments determined to be eligible for such designations under the Wild and Scenic Rivers Act is also addressed.

Date draft EIS made available to EPA and public: August 16, 1996

Date final EIS made available to EPA and public: July 2, 1999

Date comments must be received by: August 2, 1999

For further information contact:

Owyhee Area Manager
Bureau of Land Management
Boise Field Office
3948 Development Avenue
Boise, Idaho 83705

Telephone: (208) 384-3300

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SUMMARY

The Owyhee Resource Area located in southwestern Idaho's Owyhee County encompasses 1,779,492 acres with 1,320,032 acres of public land managed by BLM. A planning effort has been undertaken to provide the Bureau of Land Management, Lower Snake River District with a comprehensive framework, or resource management plan (RMP), for managing these public lands administered by the Owyhee Resource Area. The purpose of the RMP is to ensure public land use is planned for and managed in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA), and is consistent with the principles of multiple-use and sustained yield.

Public participation in the planning process began with publication of a Federal Register Notice of Intent in October 1989 and distribution of a scoping notice in November 1989. The scoping notice was sent to nearly 1,100 individuals, organizations and agencies including nearly 100 livestock permittees. Three public meetings, held in Jordan Valley, Oregon and in Marsing and Boise, Idaho were attended by over 100 people and 164 written scoping comments were received. Public participation also occurred during development of the Planning Criteria and during the Wild and Scenic River study process which is incorporated into this planning effort.

Two groups also participated during the planning process by submitting information and assisting in developing alternatives for the RMP. The Owyhee County Commissioners assisted by the Owyhee County Natural Resources Committee was one group. The other group was the Desert Group, with membership representing the environmental and conservation oriented community.

The draft RMP/EIS was released for public review and comment on August 16, 1996. The public comment period was extended twice, for a total of 10' months, and closed on July 3, 1997. Over 2, 500 copies of the draft document were printed and distributed to the public. During the comment period three public information meetings and four workshop sessions were held to assist the public in providing comments. The Martin Institute University of Idaho was contracted to facilitate the workshops which were attended by 200 participants. A total of 2,600 comment letters were received.

To meet Bureau requirements for deciding public land uses, decisions will be made on the following: air resources; soil resources; water resources; vegetation (including noxious weeds); riparian areas; forest management (including juniper woodlands); wildlife habitat; fishery habitat; special status species (including threatened and endangered species); wild horse management; livestock grazing management; fire management; lands (including tenure adjustments and rights-of-way); locatable minerals; fluid minerals; mineral materials; recreation (including wild and scenic rivers); wilderness; visual resources; cultural resources; hazardous materials; and areas of critical environmental concern.

Objectives were developed to address the future desired condition or status of the various resources. The objectives are based on law and regulation and reflect the direction that public land management is projected to follow in the future. They were modified and adjusted to apply more specifically to the Owyhee Resource Area and are constant throughout all alternatives. The environmental impacts of the alternatives are measured against meeting the objectives.

An objective is an expression of the desired end result of management efforts. Objectives are described so that the expected results are clearly stated, specific, measurable and realistic. Measurability, where appropriate, is expressed in terms of physical units and quality classes. Timeframes have been incorporated where applicable.

Public Law 103-64 was passed by Congress and signed into law on August 4, 1993. This law established the 482,457 acre Snake River Birds of Prey National Conservation Area; 57,109 public land acres are within the Owyhee Resource Area. Section 3.(a)(2) states "The purposes for which the conservation area is established, and shall be managed, are to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area." These purposes have been incorporated into the management objectives for this area.

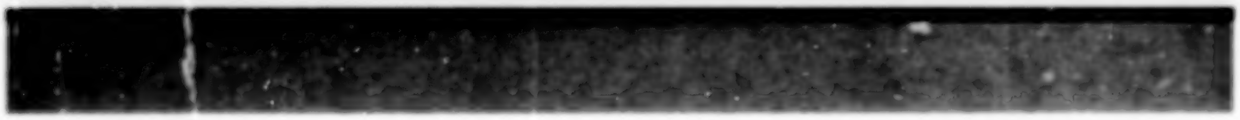
Documentation requirements for the wild and scenic river study for the Owyhee Resource Area are included in this planning effort.

The basic goal for developing alternatives for the RMP is to prepare different combinations of resource uses to address issues and management concerns, and to resolve identified conflicts. A range of resource management intensities and allocations was developed for those resources that were issue related. Non-issue related resource uses, which had only minor or no conflicts, have only small or no differences between the alternatives.

Five alternatives are described and analyzed in the final EIS. Two working groups participated during the planning process by each developing an alternative. Alternative A is a continuation of current management. Alternative B was developed through BLM staff interpretation and analysis of information submitted by the Owyhee County Commissioners with the assistance of the Owyhee County Natural Resources Committee. Alternative C was developed by the BLM Lower Snake River District interdisciplinary planning team. Alternative D was developed through BLM staff interpretation and analysis of information submitted by the Desert Group, with membership representing the environmental and conservation oriented community. Alternative E is the agency preferred alternative. It was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document.

Alternative A:

This is the "Current Management" Alternative and the "No Action" Alternative under NEPA regulations. This alternative is based on implementation of the Owyhee Management Framework Plan (MFP) approved in 1981 and is a continuation of present management. This alternative also incorporates the livestock grazing program decisions that were made based on the Owyhee Grazing EIS in 1983 and on those lands within the Owyhee Resource Area addressed in the Bruneau-Kuna Grazing EIS in 1984. This alternative generally satisfies most commodity demands of the public lands while mitigating impacts to sensitive resources on a limited basis. It includes a high level of range improvement projects and a moderate level of vegetation treatments. Livestock use levels would continue at present levels subject to adjustments when monitoring studies indicate a changing resource condition or trend has occurred.



Alternative B:

This alternative was developed through BLM staff interpretation and analysis of information submitted by the Owyhee County Commissioners with the assistance of the Owyhee County Natural Resources Committee. This alternative emphasizes commodity development while protecting most of the sensitive resources. It includes a high level of range improvement projects and a high level of vegetation treatments.

Alternative C:

This alternative was developed by the BLM Lower Snake River District interdisciplinary planning team. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a low level of range improvement projects and a low level of vegetation treatments.

Alternative D:

This alternative was developed through BLM staff interpretation and analysis of information submitted by the Desert Group, with membership representing the environmental and conservation oriented community. This alternative emphasizes improvement in ecological conditions and protection of sensitive resources with limited opportunities for commodity development. It includes no range improvement projects and a low level of vegetation treatments.

Alternative E:

This alternative is the agency preferred alternative. It was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a moderate level of range improvement projects and a moderate level of vegetation treatments.

The table on the following page is a projection of the major, quantifiable resource and land use allocations, management actions, outputs, conditions and environmental impacts for each alternative. The values displayed for the alternatives are the totals or the projected values at the end of 20 years.

Summary of resource allocations, management actions and environmental impacts by alternative.

Allocation /Action /Impact		Current Situation	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Riparian Habitat Improved		15%	45%	75%	85%	90%	85%
Fisheries Habitat Improved		13%	35%	60%	85%	90%	85%
Vegetation	Early Seral	44%	43%	43%	39%	37%	41%
Condition	Mid Seral	43%	38%	29%	38%	37%	38%
	Late Seral	11%	15%	22%	19%	20%	17%
	PNC	<1%	<1%	<1%	2%	2%	1%
	Seeding	2%	3%	6%	3%	3%	3%
Wild Horse Population Level		118-178	118-178	118-178	118-178	118-178	129-254
Livestock AUM Level (5 years)		135,116	135,116	135,116	87,121	52,685	112,649
Livestock AUM Level (20 years)		135,116	135,116	150,145	87,121	52,685	105,899
Management Projects	Spring (#)	24	45	45	13	0	45
(Current	Reservoir (number)	127	19	19	11	0	19
situation	Pipeline (miles)	65	3	22	22	0	10
reflects	Fence (miles)	290	216	131	76	0	76
1981	Cattleguard	100	75	55	22	0	22
through	Brush treatment (acres)	9,195	52,500	264,403	34,100	34,100	52,500
1995)	Juniper treatment(acres)	4,428	55,700	92,320	30,300	30,300	47,500
	Burn/seed (acres)	8,368	13,400	83,880	0	0	5,000
Locatable mineral acres withdrawn		65,457	213,069	95,687	236,463	742,267	236,366
Locatable mineral acres open		1,403,401	1,255,789	1,373,171	1,232,395	726,591	1,232,492
Fluid mineral acres closed		65,131	101,415	101,415	116,304	790,166	114,047
Fluid mineral acres open		1,403,727	1,367,443	1,367,443	1,352,554	678,692	1,354,811
Mineral material acres closed		65,131	215,238	214,511	235,549	797,633	236,317
Mineral material acres open		1,403,727	1,253,620	1,254,347	1,233,309	671,225	1,232,541
OHMV Use	Open	420,434	420,434	0	0	0	192
Designations (acres)	Limited	899,557	899,557	1,319,991	1,075,561	980,930	1,217,805
	Closed	0	0	0	244,430	339,061	101,994
Special Rect. Mgmt. Area (number)		10	10	10	9	8	10
Special Rect. Mgmt. Area (acres)		313,258	313,258	313,258	349,294	722,121	432,813
Wild and Scenic River (segments)		1	3	1	9	24	9
Wild and Scenic River (miles)		66	94	66	163	223	163
ACEC/ONA (number)		4	4	4	17	19	13
ACEC/ONA (acres)		152,458	152,458	152,458	235,290	265,016	167,372
Rangeland project investment ($)		2,536,491	2,437,112	5,530,374	962,713	411,075	1,339,315
Recreation facility investment ($)		273,545	985,000	985,000	1,700,300	1,700,300	1,502,000
Total rangeland & recreation ($)		2,832,476	3,422,112	6,515,374	2,663,013	2,111,375	2,841,315
Ranch Income Above Operating Cost							
Jordan Valley ($)		$16,900	+3,000	+3,300	-2,200	-7,700	+700
Marsing ($)		$30,900	+11,400	+12,900	-8,100	-28,000	0
Bruneau ($)		$36,600	+125,200	+231,500	+9,400	-53,700	+125,200
Total Industry Impact Owyhee County							
Direct plus Indirect ($)		-------	+584,700	+885,300	-161,900	-794,400	+357,100
Value Added ($)		-------	+218,600	+331,100	-60,500	-297,000	+133,500
Regional Income ($)		-------	+194,900	+295,200	-54,000	-264,900	+119,900
Total Economic ($)		-------	+803,300	+1,216,300	-222,500	-1,091,300	+490,500
Total Employment		-------	+4	+7	-1	-6	+3

The following table displays how each of the alternatives meet the objectives. The objectives are defined following the table.

Comparison of Meeting the Objectives by Alternative

	Alternative A	**Alternative B**	**Alternative C**	**Alternative D**	**Alternative E**
AIRQ 1:	Met	Met	Met	Met	Met
SOIL 1:	Met on up to 70%	Met on up to 80%	Met on over 80%	Met on over 80%	Met on over 80%
SOIL 2:	Met on up tp 65%	Met on up to 75%	Met on over 75%	Met on over 80%	Met on over 75%
WATR 1:	Met on 45%	Met on 75%	Met on 85%	Met on 90%	Met on 85%
WATR 2:	Met	Met	Met	Met	Met
VEGE 1:	Not met	Met	Met	Met	Met
RIPN 1:	Met on 45%	Met on 75%	Met on 85%	Met on 90%	Met on 85%
FORS 1:	Not met	Generally met	Met	Met	Met
FORS 2:	138,6[illegible] acres met	458,693 acres met	81,400 acres met	81,400 acres met	122,000 acres met
WDLF 1:	Not met	Partially met	Met	Met	Met
FISH 1:	Met on 35%	Met on 60%	Met on 85%	Met on 90%	Met on 85%
FISH 2:	Partially met	Met on majority	Met on majority	Met on majority	Met on majority
SPSS 1:	Partially met	Partially met	Mostly met	Mostly met	Mostly met
WHRS 1:	Partially met	Partially met	Met	Met	Met
LVST 1:	Not met	Not met	Generally met	Generally met	Met
LOCM 1:	Met	Met	Met	Not met	Met
FLUM 1:	Met	Met	Met	Not met	Met
MMAT 1:	Met	Met	Met	Not met	Met
RECT 1:	Partially met	Not met	Not met	Not met	Met
RECT 2:	Partially met	Not met	Met	Met	Met
RECT 3:	Met on 42%	Met on 30%	Met on 74%	Met on 100%	Met on 74%
RECT 4:	Partially met	Partially met	Met	Partially met	Met
RECT 5:	Not met	Not met	Met	Partially met	Met
RECT 6:	Met	Met	Met	Met	Met
RECT 7:	Met (10%)	Not met (5%)	Met (10%)	Exceeded (12%)	Met (10%)
WNES 1:	Met	Not met	Met	Exceeded	Met
WNES 2:	Met	Met	Met	Exceeded	Met
VISL 1:	Partially met	Partially met	Met	Met	Met
CULT 1:	Not met	Not met	Met	Met	Met
CULT 2:	Partially met	Partially met	Met	Met	Met
CULT 3:	Met	Met	Met	Met	Met
HAZM 1:	Met	Met	Met	Met	Met
ACEC 1:	Met on 4 areas	Met on 4 areas	Met on 17 areas	Met on 19 areas	Met on 13 areas

Objectives:

AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

FORS 2: Use juniper harvesting to help achieve a desired plant community.

WDLF 1: Maintain or enhance the condition, abundance and distribution of plant communities and special habitat features required to support the large diversity and desired numbers of wildlife.

FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

FISH 2: Improve reservoir fisheries, when appropriate, in consultation with State agencies and adjacent landowners.

SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Apppendix LVST-1).

LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

RECT 1: Provide for off-highway motor vehicle (OHMV) use on public lands while protecting sensitive resource values.

RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

RECT 5: Develop a trail system that provides a range of motorized and nonmotorized recreation opportunities for the public's enjoyment of primitive, semi-primitive nonmotorized, semi-primitive motorized, and roaded natural settings.

RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

RECT 7: Retain at least 10% of the ORA in a primitive recreational opportunity (ROS) setting.

WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

CULT 1: Protect known cultural resource values from loss until their significance is determined.

CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands.

ACEC 1: Retain existing and designate new Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and where special management is needed to protect the values identified.

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Purpose and Need

The Owyhee Resource Management Plan (RMP) is being prepared to provide the Bureau of Land Management, Lower Snake River District with a comprehensive framework for managing public lands administered by the Owyhee Resource Area. The purpose of the RMP is to ensure public land use is planned for and managed on the basis of multiple-use and sustained yield in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA).

The RMP, when approved, will replace land use planning decisions in the existing Owyhee Management Framework Plan (MFP), approved in 1981, which has guided BLM's management of public lands in the Owyhee Resource Area for the past 18 years. The MFP decisions that still have merit have been carried forward and are incorporated into this RMP effort. During the past 15 years resource conditions and public demands have changed sufficiently to warrant revisiting the land use planning decisions for the Owyhee Resource Area.

Planning Area

The Owyhee Resource Area, located in southwestern Idaho's Owyhee County, encompasses 1,779,492 acres. This total includes the following:

1,320,032 acres administered by BLM, Idaho
136,936 acres administered by the State of Idaho
319,777 acres of private lands
2,747 acres of water, primarily the Snake River

The area is bounded on the west by Oregon, on the south by Nevada, on the north by the Snake River and on the east by Castle Creek, Deep Creek, the Owyhee River, and the Duck Valley Indian Reservation. Most of the public lands are contiguous with only a few scattered or isolated parcels. See Map GEN-1 and LAND-1.

Recently the former Boise District changed its name to the Lower Snake River District. Owyhee Resource Area staff are within the Lower Snake River District which is located in the Boise Field Office in Boise, Idaho. Within this document there are several references to the Boise District. Where these Boise District references appear, they apply to the Lower Snake River District.

The resource area contains the northern extent of the Owyhee Mountain Range and lies within what is often referred to as the Columbia Plateau. The Columbia Plateau is an elevated plateau with mountains which are separated by canyons draining to the Pacific Ocean via the Snake and Columbia Rivers. This broad regional landform and vegetative classification is known as the Intermountain Sagebrush Province/ Sagebrush Steppe Ecosystem.

The Sagebrush Steppe Ecosystem is widespread over much of southern Idaho, eastern Oregon and Washington, and portions of northern Nevada, California, and Utah. This ecosystem contains a large diversity in landform and vegetation types ranging from vast expanses of flat sagebrush covered plateaus to rugged mountains blanketed with juniper woodlands and grasslands.

Public Participation

Public participation in the planning process began with publication of a Federal Register Notice of Intent to initiate a resource management plan in October 1989, and distribution of a scoping notice in November 1989. This was the public's opportunity to suggest concerns, needs and management opportunities for the BLM to consider during the preparation of the RMP. The scoping process also helps determine the range of actions, alternatives, and impacts that will be addressed in the EIS.

The scoping notice was sent to nearly 1,100 individuals, organizations and agencies including nearly 100 livestock permittees. The notice identified preliminary issues and general topics to be addressed in the RMP and solicited public comment on additional concerns. The notice also announced three public meetings that were held in Jordan Valley, Oregon, and in Marsing and Boise, Idaho in December of 1989.

The three public meetings were attended by over 100 people. The BLM also received 164 scoping letters from individuals, organizations and agencies. This high level of interest and participation generated many comments expressing concern with management of the public lands and what issues should be addressed in the Owyhee RMP. Public participation also occurred during development of the Planning Criteria and during the Wild and Scenic River study process which is incorporated into this planning effort.

Two groups also participated during the planning process by developing alternatives for the RMP. The Owyhee County Commissioners assisted by the Owyhee County Natural Resources Committee submitted information from which Alternative B was developed.

The Desert Group, with membership representing the environmental and conservation oriented community, submitted information for the development of Alternative D.

Proposed planning criteria were developed by the interdisciplinary team and sent to the public for review and comment in November 1990. A total of sixteen comment letters were received in response. The public comments were considered and appropriate revisions were made. The planning criteria were approved by the District Manager in February 1991.

The draft RMP/EIS was released for public review and comment on August 16, 1996. The public comment period was extended twice, for a total of 10' months, and closed on July 3, 1997. Over 2,500 copies of the draft document were printed and distributed to the public. During the comment period three public information meetings and four workshop sessions were held to assist the public in providing comments. The Martin Institute, University of Idaho was contracted to facilitate the workshops which were attended by 200 participants. A total of 2,600 comment letters were received.

Planning Issues

As a result of the scoping process, three comprehensive planning issues have been identified and are being carried forward into the RMP. The issues to be addressed in the RMP will focus on the following:

- land tenure adjustments (transfer of lands from Federal ownership)
- recreation management (including off-road vehicle use, wilderness, national wild, scenic and recreational rivers, recreation sites, and areas of critical environmental concern).
- vegetation management (including needs for livestock, wildlife, wild horses, water quality, riparian values, threatened and endangered species, and watershed protection)

Land Tenure Adjustment Issue

Land ownership patterns within the resource area contain some areas of scattered tracts and intermingled ownerships. Such patterns present problems for the efficient management and utilization of public resources. The means to relieve such problems are through exchanges with other landowners, transfers to other agencies and public sale of identified tracts. Such actions can lead to potential conflicts with loss of resources or environmental values, use of resources and preservation of resources.

Considerations in Resolving the Issue

Which lands should be identified for transfer from Federal ownership through State exchange, sale, or private exchange? Which lands should be retained in public ownership because of high natural resource values or public use and not made available for any form of disposal, including exchange?

Recreation Management Issue

As populations continue to grow in southwest Idaho, the demand for recreational opportunities is expanding dramatically. Increasing recreational use may require restriction on ORV use, setting aside fragile ecosystems and developing more recreation sites. River boating in the resource area is becoming popular. BLM has the opportunity to recommend river segments for wild, scenic, or recreational protection within the National Wild & Scenic River Systems. This could affect boating use and other uses of the river corridors.

Considerations in Resolving the Issues

What types and levels of recreational use should be provided? What types of off-road restrictions are required to protect fragile ecosystems? Should BLM develop more campgrounds and generally improve recreation access opportunities? Should fragile or unique areas be designated for special management? How should public lands be managed within river corridors that are eligible for national wild or scenic or recreational designation?

Vegetation Management Issue

Forage for wildlife, wild horses, and livestock needs to be balanced against watershed and soil protection requirements. Grazing management practices prescribed in preceding land use plans (Owyhee and Bruneau-Kuna Grazing EISs and Management Framework Plans (MFP)) have not been fully implemented, and it now appears that they cannot be implemented within a reasonable timeframe. Existing management decision documents do not adequately address recent shifts in wildlife populations or concerns over water quality and riparian conditions. To accommodate these concerns it may be necessary to revise some forage and land use allocations. Revisions have the potential for conflicts over the use or preservation a resources.

Considerations in Resolving the Issue

What changes are needed in the grazing management program identified in the Owyhee Grazing EIS/MFP and Bruneau-Kuna EIS/MFP and where are they needed? Should there be a priority of some areas over others? If so, what areas should receive what priority and how should priorities be established?

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Should BLM allocate forage for wildlife on public lands? If so, at what target population levels? What priority should wild horses receive in the forage allocation? How much annual vegetation production should be reserved for riparian system functions, soil protection and water quality improvement? How much should livestock grazing be changed to accommodate such modifications?

Spectrum of Decisions

In order to address these three comprehensive issues and to meet Bureau requirements for deciding public land uses, decisions will be made on the following: air resources, soil resources, water resources, vegetation (including noxious weeds), riparian areas, forest management (including juniper woodlands), wildlife habitat, fishery habitat, special status species (including threatened and endangered species), wild horse management, livestock grazing management, fire management, lands (including tenure adjustments and rights-of-way), locatable minerals, fluid minerals, mineral materials, recreation (including wild and scenic rivers), wilderness, visual resources, cultural resources, hazardous materials, and areas of critical environmental concern. The supplemental program guidance (Bureau Manual 1600 series) issued under the Bureau Planning Regulations provides direction and establishes minimum, program specific content requirements for making decisions in the RMP.

Planning Criteria

This step in the planning process provides for the development of planning criteria. Planning criteria influence all aspects of the planning process including inventory and data collection, formulation of alternatives, estimation of effects, and selection of the preferred alternative and RMP. Planning criteria can be in the form of limits or constraints, or they can be statements of goals or standards to be achieved. Planning Criteria do the following:

- streamline the plan's preparation and put it into focus;
- establish standards, rules, and measures to be used in the process;
- guide development of the RMP to ensure that it is tailored to the issues;
- guide and direct the resolution of issues through the planning process;
- indicate factors and data that must be considered in making decisions.

The planning criteria were approved by the District Manager in February 1991.

General Planning Criteria

The principles of multiple use and sustained yield will guide the land use decisions within the Owyhee Resource Area. However, all lands may not be open for all multiple uses. Some uses may be excluded on some lands to protect resource values either by law or regulation or by decision reached through the planning process. Site specific locations for range improvements and other structures will generally not be determined in the RMP. The RMP will be prepared using the most current and best available information. Only limited inventories for the purpose of gathering additional data will be conducted. The following general planning criteria will be considered in developing the Resource Management Plan (RMP) for the Owyhee Resource Area:

- Existing laws, regulations, and BLM policies;
- Plans, programs and policies of other Federal agencies, State and local governments, and Indian tribes;
- Public input;

[redacted]

- Quantity and quality of noncommodity resource values;
- Future needs and demands for existing or potential resource commodities and values;
- Past and present use of public and adjacent lands;
- Public benefits of providing goods and services relative to costs;
- Environmental impacts;
- Social and economic values;
- Public welfare and safety.

Specific Program Planning Criteria

In addition to the general criteria listed above, the following program-specific criteria will apply to individual program decisions:

Air Quality: Under the Clean Air Act, BLM administered lands were given a Class II air quality classification. This classification allows moderate deterioration associated with moderate, well-controlled industrial and population growth. All lands within the resource area will be managed under Class II standards unless they are reclassified by the State as provided for in the Clean Air Act.

Water Quality: Section 319 of the Clean Water Act obligates Federal agencies to be consistent with State Nonpoint Source Management Program Plans and relevant water quality standards. Section 313 requires compliance with State Water Quality Standards. BLM will incorporate applicable best management practices or other conservation measures for specific programs and activities into the RMP. Water quality will be maintained or improved in accordance with State and Federal standards.

Vegetation Management: Vegetation will be managed to achieve desired plant communities (considering the ecological site potential) that provide for: biodiversity; protection and restoration of native species; and non-consumptive uses including plant protection, visual quality and watershed protection. The desired plant communities will provide forage for livestock, wildlife, and wild horses.

Forage will be allocated for domestic livestock grazing on suitable rangeland based on multiple use and sustained yield.

Plant maintenance, watershed protection and stability, and wildlife habitat needs will be provided for.

Forage will be allocated to support wildlife at population levels based on multiple use and sustained yield objectives and through consultation with the Idaho Department of Fish and Game.

Forage will be allocated to wild horses sufficient to support the appropriate management level (AML).

Water quality will be given priority in all vegetation management decisions.

Prescribed fire and other treatment methods will be considered as management tools to manipulate vegetation.

Riparian Areas, Floodplains and Wetlands: Riparian areas, floodplains and wetlands will be managed to protect, improve and restore their natural functions to benefit water storage, groundwater recharge, water quality, and fish and wildlife values. All management practices will be designed to maintain or improve the integrity of these high-priority values. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management will be used to guide management actions.

Forest and Woodland Management: Except where closed by law or regulation, lands containing forest products such as firewood and Christmas trees will be available for harvest, subject to special restrictions to protect other resource values.

[redacted]

Noxious Weed Control: BLM will work with county governments to monitor the locations and spread of noxious weeds. BLM will control the occurrence and spread of noxious weeds on public lands where economically feasible and to the extent funds are available. Noxious weed control will be conducted in accordance with the integrated weed management guidelines and design features identified in the Northwest Area Noxious Weed Control Program EIS of 1985.

Threatened and Endangered Species: Management actions authorized, funded or implemented by BLM will be done so as not to jeopardize the continued existence of Federally listed threatened or endangered plant or animal species or result in the destruction or modification of critical habitat. State sensitive species and species proposed for Federal listing (candidate species) will be given the same consideration as listed species.

Wild Horses: Forage will be provided to support wild horses at levels established in accordance with the Wild and Free-Roaming Horses and Burros Act. Adjustments of the appropriate management level (AML) range will be based on monitoring to ensure a thriving natural ecological balance within the herd management areas (HMAs).

Livestock Management: Livestock utilization of public lands will be managed under the principles of multiple use and sustained yield. Livestock will be managed to improve public land resources, enhance productivity and stabilize the livestock industry dependent upon the public range over the long term. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management will be used to provide guidance.

Forage will be allocated for domestic livestock grazing on suitable rangeland based on multiple use and sustained yield objectives by allotment. Forage determinations made in the RMP will provide guidance for issuance of grazing decisions on individual allotments in accordance with applicable BLM regulations. Decisions will be made on season of use, class of livestock and stocking levels.

Fire Management: Wildfires will be aggressively suppressed in all areas except where specifically identified to allow natural fire processes to occur. Fire suppression will be done using the least amount of surface disturbance. In wilderness study areas and in areas containing significant cultural or paleontological values, surface-disturbing fire suppression equipment will only be used to protect human life or property. Public lands and resources affected by fire will be rehabilitated in accordance with the multiple use objectives identified for the affected area, subject to available funding. The Lower Snake River District Fire Management Plan will provide guidance for fire management activities.

Land Tenure Adjustments: All public lands will be retained in Federal ownership unless determined that disposal of a particular parcel will serve the public interest. Lands may be identified for disposal by sale, exchange, or State indemnity selection. Lands identified for acquisition will be based on public benefits, management considerations and public access needs. Specific actions to implement the land tenure decisions made in the RMP will include full public participation.

Rights-of-way: Public lands will generally be available for transportation and utility rights-of-way except where specifically prohibited by law or regulation (such as wilderness study areas) and in areas specifically identified as avoidance and exclusion areas to protect high resource values.

Energy and Minerals: Except where specifically withdrawn to protect resource values, public lands will be available for energy and mineral exploration and development based upon applicable regulations and Federal and State laws. Mitigation measures will be developed to protect resource values.

Recreation: The public lands will be managed to enhance recreation opportunities and visual resources. All lands will be identified as being within either special recreation management areas (SRMAs) or extensive recreation management areas (ERMAs). Some areas may be subject to special measures to protect resources or reduce conflicts among uses. BLM may develop and maintain various recreation facilities on the public lands including campgrounds, picnic areas and boat launches.

Motorized Vehicle Use: All public lands will be designated as open, limited, or closed to off-highway vehicles. Public safety, resource protection, user access needs and conflict resolution will be considered in making these decisions.

National Wild and Scenic Rivers System: All rivers and streams in the Owyhee Resource Area, including those on the Nationwide River Inventory, will be evaluated for potential addition to the National Wild and Scenic Rivers System. The evaluation will be done in accordance with the guidelines published by the Secretaries of Interior and Agriculture on September 7, 1982, and other current applicable guidance.

Wilderness Recommendations: BLM wilderness recommendations developed during previous wilderness evaluation efforts will be carried forward into the RMP. Any additional BLM wilderness "suitable" recommendations developed during the RMP will be in accordance with the criteria and quality standards identified in the BLM Wilderness Study Policy; Policies Criteria and Guidelines for Conducting Wilderness Studies on Public Lands.

Cultural, Geological, Paleontological and Cave Resources: Cultural, geological, paleontological and cave resources will be managed to maintain or enhance significant scientific, educational and recreational values. Cultural sites that meet National Register criteria will be protected and nominated for inclusion on the register.

Areas of Critical Environmental Concern (ACEC): Areas of Critical Environmental Concern (ACECs) are defined by the Federal Land Policy and Management Act (FLPMA) as: "Areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." ACECs may be designated in areas where both criteria of "relevance" and "importance" as defined in the BLM planning regulations are met.

Snake River Birds of Prey National Conservation Area Legislation

Public Law 103-64 was passed by Congress and signed into law on August 4, 1993. This law established the 482,457 acre Snake River Birds of Prey National Conservation Area (SRBOPNCA); 57,109 public land acres are within the Owyhee Resource Area. Section 3.(a)(2) states "The purposes for which the conservation area is established, and shall be managed, are to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area." These purposes have been incorporated into the management objectives for this area.

The law set forth specific land use management directives for the conservation area. The law specifically withdrew the Federal lands within the conservation area from all forms of entry, appropriation, application, selection and disposal except for voluntary land exchanges which would resolve ownership related land use conflicts within the conservation area. The law also withdrew the Federal lands from location under the mining laws, the operation of the mineral and geothermal leasing laws, and the mineral material disposal laws, except that mineral materials subject to disposal may be made available from existing sites. These mandates are reflected in all alternatives in the Owyhee RMP.

Standards and Guidelines – Department of the Interior Regulations

The Secretary of the Interior promulgated amendments (final rules) to the following regulations pertaining to livestock grazing on public lands administered by the Bureau of Land Management: 43 CFR Part 4 - Department Hearings and Appeals Procedures; 43 CFR Part 1780 - Cooperative Relations; and 43 CFR Part 4100 - Grazing Administration-Exclusive of Alaska.

The above final rules were published in the Federal Register on February 22, 1995 and became effective on August 21, 1995.

Sections 4180.1 and 4180.2 of 43 CFR Part 4100 address "Fundamentals of rangeland health" and "Standards and guidelines for grazing administration", respectively.

The Idaho State Director of the Bureau of Land Management, in consultation with the three resource advisory councils in Idaho established under 43 CFR Part 1780, Subpart 1784, developed standards and guidelines to be applied to livestock grazing. Those standards and guidelines were approved by the Secretary of Interior on August 12, 1997. See Appendix LVST-2.

The Proposed Resource Management Plan (RMP) was evaluated and it was concluded that it is in conformance with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management. It was also determined that any alternative could, and would if selected, be implemented in conformance with the standards and guidelines.

Interior Columbia Basin Ecosystem Management Project

Development of the ORMP has overlapped with the development of the Interior Columbia Basin Ecosystem Management Project (ICBEMP). When the record of decision for the ICBEMP is signed, 65 BLM and Forest Service land use plans will be amended. The Owyhee RMP will be one of those plans. The amendment process will entail the incorporation of management direction from ICBEMP into the RMP in a hierarchical manner. If there is management direction in the RMP that is inconsistent with ICBEMP, the RMP will be revised to ensure consistency. If there is management direction from ICBEMP that is not addressed in the RMP, but that is applicable to the Owyhee Resource Area, it will be incorporated in the RMP. If there is management direction in the RMP that is consistent with ICBEMP, but is more detailed, it will be retained (this is expected to be the primary situation with the ORMP).

Also associated with the ICBEMP is the ICBEMP Scientific Assessment. The Scientific Assessment used information from many sources and disciplines on lands within the Basin and has resulted in the preparation of numerous documents, databases and models. The Scientific Assessment provides information about broad-scale conditions and trends within the Basin and is intended to be used by managers to develop broad management goals and priorities and to provide context for decisions at finer scales. The ICBEMP is developing processes for "stepping down" the broad-scale information of the Scientific Assessment which would involve three levels of analysis. These processes include sub-basin review (mid-scale analysis), Ecosystem Analysis at the Watershed Scale and site or project analysis. Over time, the Scientific Assessment information such as concerns with rangeland health, aquatic health, weeds, resource dependent economically vulnerable communities, etc. can be related to successively finer scales within the Owyhee Resource Area through the "step-down" process. Because the Owyhee RMP and the Scientific Assessment were developed concurrently, the Assessment has not been incorporated directly into the RMP. However, as with other plans in the Interior Columbia Basin, such incorporation will take place over time through the step-down process.

Enhanced Training in Idaho Final EIS

The Enhanced Training in Idaho Final EIS was published in January 1998. Subsequently, in October 1998, the Juniper Butte Range Withdrawal Act, Public Law 105-261 was passed, withdrawing an area of public land for the Juniper Butte Range and establishing guidelines for managing related military operations. The BLM is continuing to work with the Air Force to implement that law in developing and implementing appropriate mitigation measures in accordance with the new law as it relates to the management of public lands. The Juniper Butte Range is located outside of the Owyhee Resource Area and implementation is not expected to result in any significant changes involving the Owyhee Resource Management Plan.

Consistency With Other Plans

The Bureau planning regulations found at 43 CFR Part 1610.3-2 state that resource management plans shall be consistent with officially approved or adopted resource related plans, policies and programs of other Federal agencies, State and local governments and Indian tribes, so long as the plans are also consistent with the purposes, policies and programs of Federal laws and regulations applicable to public lands, including Federal and State pollution control laws as implemented by applicable Federal and State air, water, noise, and other pollution standards or implementation plans.

This Proposed Plan/Final EIS is being distributed to other Federal agencies, State and local governments and Indian tribes for the opportunity for them to identify where specific inconsistencies may exist, and to suggest ways to resolve them.

The BLM has reviewed the Owyhee Proposed RMP and believes the Plan is consistent with the officially approved or adopted resource-related plans, policies, and programs of other Federal agencies, State and local governments, and Indian tribes.

Bruneau Management Framework Plan

The Bruneau Resource Area adjoins the eastern side of the Owyhee Resource Area. The Owyhee River, Deep Creek and Castle Creek form the boundary. Some Special Recreation Management Areas (SRMAs) encompass lands in both resource areas and are managed as a unit. No changes in management direction for these lands within the Bruneau Resource Area have been identified.

Objective Development

Objectives were developed to address the future desired condition or status of the various resources. The objectives are based on law and regulation and reflect the direction that public land management is projected to follow in the future. They were modified and adjusted to apply more specifically to the Owyhee Resource Area and are constant throughout all alternatives. The environmental impacts of the alternatives are measured against meeting the objectives.

An objective is an expression of the desired end result of management efforts. Objectives are described so that the expected results are clearly stated, specific, measurable and realistic. Measurability, where appropriate, is expressed in terms of physical units and quality classes. Timeframes have been incorporated where applicable.

In some instances, an objective and its associated management actions and allocations may apply to only one of the three geographic reference areas that have been identified for the Owyhee Resource Area. For purposes specific to this Owyhee RMP effort, geographical reference areas (GRAs) have been identified and are defined as areas of land with relatively similar climatic and geographic characteristics, resource values and conditions, opportunities for management and capability for resource response to management. Three geographical reference areas have been identified within the Owyhee Resource Area for this RMP effort: the Snake River GRA, the Jordan Creek GRA and the Owyhee River GRA. Boundaries were selected to include the greatest number of common resource conditions, concerns and opportunities. The boundaries are not fixed and may be adjusted based on additional information. See Map LAND-2 for the approximate boundaries.

Alternative Development

Development of alternatives for the Owyhee RMP was guided by the National Environmental Policy Act (NEPA), the BLM resources management planning regulations and the Idaho Guidebook for preparing the RMPs. These directives require that alternatives be developed to address issues.
The basic goal for developing alternatives for the RMP is to prepare different combinations of resource uses to address each issue and management concern, and to resolve the identified conflicts. A range of resource management intensities and allocations was developed for those resources that were issue related. Non-issue related resource uses, which had only minor or no conflicts in use levels or management intensity, have only small or no differences between the alternatives.

Each alternative must meet the standards (criteria) as outlined in the "Idaho Guidebook." These standards state that each alternative must be a complete resource management plan for the public lands within the planning area and must:

[redacted]

- be reasonable;
- provide for a balance of resource protection, management use and development;
- be responsive to the issues (each issue must be addressed in at least one alternative or subalternative); and
- meet BLM requirements (all required alternatives for range, wilderness, or other programs must be incorporated in at least one alternative or subalternative).

Five alternatives are described and analyzed in this final EIS. As the alternatives were formulated the interdisciplinary planning team and other staff members considered the public input received during the planning process. All alternatives respond to the planning questions that have been asked about the respective issues. Several other alternatives were considered in addressing specific issues in the Owyhee Resource Area, but were dropped from further study. Among these were alternatives which promoted unconstrained production or protection, or targeted specific resources. Such alternatives were considered inappropriate because they failed to meet planning criteria for alternative formulation, one or more of the Federal Land Policy and Management Act of 1976 (FLPMA) planning criteria, or would be in direct violation of one or more Federal laws or regulations.

Alternatives Considered in Detail

Alternative A

This is the "Current Management" Alternative and the "No Action" Alternative under NEPA regulations. This alternative is based on implementation of the Owyhee Management Framework Plan (MFP) approved in 1981 and is a continuation of present management. This alternative also incorporates the livestock grazing program decisions that were made based on the Owyhee Grazing EIS in 1983 and on those lands within the Owyhee Resource Area addressed in the Bruneau-Kuna Grazing EIS in 1984. This alternative generally satisfies most commodity demands of the public lands while mitigating impacts to sensitive resources on a limited basis. It includes a high level of range improvement projects and moderate level of vegetation treatments. Livestock use levels would continue at present levels subject to adjustments when monitoring studies indicate a changing resource condition or trend has occurred.

Alternative B

This alternative was developed through BLM staff interpretation and analysis of information submitted by the Owyhee County Commissioners with the assistance of the Owyhee County Natural Resources Committee. This alternative emphasizes commodity development while protecting most of the sensitive resources. It includes a high level of range improvement projects and a high level of vegetation treatments.

Alternative C

This alternative was developed by the BLM Lower Snake River District interdisciplinary planning team. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a low level of range improvement projects and a low level of vegetation treatments.

Alternative D

This alternative was developed through BLM staff interpretation and analysis of information submitted by the Desert Group, with membership representing the environmental and conservation oriented community. This alternative emphasizes improvement in ecological conditions and protection of sensitive resources with limited opportunities for commodity development. It includes no range improvement projects and a low level of vegetation treatments.

Alternative E

This alternative is the agency preferred alternative. It was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a moderate level of range improvement projects and a moderate level of vegetation treatments.

Relationship of the Owyhee RMP to Other Planning Documents

BLM has three primary levels of land use planning decisions; the RMP level, the activity level and the site specific level. This RMP focuses mostly on broad resource objectives and direction. However, it also provides some activity level guidance and includes some site specific decisions. Several existing activity level plans are referenced in this RMP and are acknowledged as current guidance. They will be updated or modified, as necessary, to include current information and be in conformance with the approved RMP. These plans include, but are not limited to, the Owyhee Off-road Vehicle Management Plan, the Wild Horse Herd Management Plan, the Lower Snake River District Fire Management Plan, the Owyhee Juniper Woodland Harvest Management Plan, the Snake River Birds of Prey National Conservation Area Management Plan, the Owyhee River Recreation Management Plan and several livestock grazing allotment management plans. Subsequent activity level and site specific level planning processes will include appropriate public participation opportunities and NEPA compliance.

Revisions Between Draft Plan/Draft EIS and the Proposed Plan/Final EIS

The Proposed Plan/Final EIS incorporates revisions to the draft document and includes a description and an analysis of a new alternative in light of the following:

- Consideration of public comments received on the draft document
- Secretary of the Interior approval of the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management
- Data collection and analysis since release of the draft document
- Revisions in air quality standards under the Clean Air Act
- Adjustments in allotments resulting in 154 allotments rather than 165 allotments
- Refined Geographic Information System (GIS) methodology for computing acreage and mileage
- Internal BLM recommendations

Development of the Proposed RMP

The Owyhee Draft RMP/EIS described and analyzed four alternatives for public land management in the Owyhee Resource Area. In consideration of public comments received on that draft document and in response to internal BLM direction, a fifth alternative was developed and analyzed in this Proposed RMP/Final EIS. That alternative, Alternative E, is the BLM preferred alternative and the Proposed Plan (RMP). Primary revisions and features of the Proposed Plan, compared to the preferred alternative (Alternative C) in the draft document, are identified below.

- The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management have been integrated into the Water Resources, Vegetation, Riparian-Wetland Areas, Fishery Habitat, and Livestock Grazing Management sections.

- The two objectives in the Soil Resources section addressing lands below and above 3,500 feet in elevation have been combined.

- The two objectives in the Vegetation section addressing lands below and above 3,500 feet in elevation have been combined.

- The four objectives in the Wildlife section have been combined into one objective.

- Vegetation treatment has been increased from 81,400 acres in the draft Alternative C to 122,000 acres in the Proposed Plan, largely in response to concerns for controlling the spread of juniper.

- There would be 45 springs and 19 reservoirs developed, an increase from 13 springs and 11 reservoirs in the draft Alternative C. The number of pipeline miles would decrease from 22 to 10.

- Wild horses would be managed in generally the same locations and under similar criteria as they are currently managed. The appropriate management level would increase from 149 to 192 animals.

- Off-highway motorized vehicle (OHMV) recreational use, and mechanized vehicle use such as mountain bikes, would be 'Open' on 192 acres, 'Limited' on 1,217,805 acres and 'Closed' on 101,994 acres.

- Over snow vehicle (OSV) recreational use would be 'Open' on 864,729 acres, 'Limited' on 114,960 acres, 'Closed' on 259,036 acres and 'Closed-IMP' on 81,226 acres.

- The Proposed Plan identifies 13 areas and a total of 167,372 acres for Area of Critical Environmental Concern (ACEC) designation. The draft Alternative C identified 17 areas and 235,290 acres for designation There are currently 4 areas and 152,458 acres designated.

- The Coal Mine Basin ACEC would contain 1,604 acres, all in Idaho. The 775 adjacent acres in Oregon are being considered in the Draft Southeast Oregon RMP/EIS released in October 1998.

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INTRODUCTION

This chapter describes the five alternatives that have been developed.

Alternative A

This is the "Current Management" Alternative and the "No Action" Alternative under NEPA regulations. This alternative is based on implementation of the Owyhee Management Framework Plan (MFP) approved in 1981 and is a continuation of present management. This alternative also incorporates the livestock grazing program decisions that were made based on the Owyhee Grazing EIS in 1983 and on those lands within the Owyhee Resource Area addressed in the Bruneau-Kuna Grazing EIS in 1984. This alternative generally satisfies most commodity demands of the public lands while mitigating impacts to sensitive resources on a limited basis. It includes a high level of range improvement projects and a moderate level of vegetation treatments. Livestock use levels would continue at present levels subject to adjustments when monitoring studies indicate a changing resource condition or trend has occurred.

Alternative B

This alternative was developed through BLM staff interpretation and analysis of information submitted by the Owyhee County Commissioners with the assistance of the Owyhee County Land Use Planning Committee. This alternative emphasizes commodity development while protecting most of the sensitive resources. It includes a high level of range improvement projects and a high level of vegetation treatments.

Alternative C

This alternative was developed by the BLM Lower Snake River District interdisciplinary planning team. It identifies management actions that would work toward achieving the identified resource objectives within twenty years. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a low level of range improvement projects and a low level of vegetation treatments.

Alternative D

This alternative was developed through BLM staff interpretation and analysis of information submitted by the Desert Group, with membership representing the environmental and conservation oriented community. This alternative emphasizes improvement in ecological conditions and protection of sensitive resources with limited opportunities for commodity development. It includes no range improvement projects and a low level of vegetation treatments.

Alternative E

This alternative is the agency preferred alternative. It was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a moderate level of range improvement projects and a moderate level of vegetation treatments.

[redacted]

This chapter also presents the objectives that have been adopted, the rationale for adopting them, the monitoring needed to measure progress toward achieving them and the management actions and allocations (decisions) prescribed to meet them. All of the objectives apply to the entire resource area unless stated otherwise.

The chapter is arranged by Resource (with a 4 letter code), by Objective (single digit number following 4 letter code). Each resource may have one or more objectives. The objectives are the same for all alternatives. The rationale for adopting the objective and the monitoring needed to evaluate progress at meeting the objective are identified for each objective. The management actions and allocations are listed in sequential order under each objective. Each objective may have one or more management actions or allocations.

In some instances, an objective and its associated management actions and allocations may apply to only one of the three geographic reference areas that have been identified for the Owyhee Resource Area. For purposes specific to this Owyhee RMP effort, geographical reference areas (GRAs) have been identified and are defined as areas of land with relatively similar climatic and geographic characteristics, resource values and conditions, opportunities for management and capability for resource response to management. Three geographical reference areas have been identified within the Owyhee Resource Area for this RMP effort: the Snake River GRA, the Jordan Creek GRA and the Owyhee River GRA. Boundaries were selected to include the greatest number of common resource conditions, concerns and opportunities. The boundaries are not fixed and may be adjusted based on additional information. See Map LAND-2 for the approximate boundaries.

ALTERNATIVE A

Air Resources

AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

Rationale: The Federal Clean Air Act and State of Idaho regulations require Federal agencies to meet or exceed air quality standards.

Monitoring:

- Review of prescribed burn plan, pre-burn and post-burn calculations of acreage and tonnage on site.
- Annual Work Plan (AWP) identification.
- Maintain accurate records of both acreage and tonnage burned to date.
- Periodic review of NEPA documentation.-Field review of compliance with mitigating measures.

1. Limit prescribed burning in juniper/sagebrush/grassland areas to approximately 9, 000 acres (or the equivalent of 60, 000 tons of fuels) per year. Limit individual prescribed burns to 3, 000 acres with a 72 hour interval before any new burn actions.

2. Limit unnecessary emissions from existing and new point and nonpoint sources by requiring and implementing Best Management Practices (BMPs).

Soil Resources

SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:

- Monitoring includes rangeland health assessments, collection of utilization, trend, climate, and ecological site inventory data by various methods. See Appendix MONT-1 for details concerning some of these procedures.
- Area specific monitoring may be conducted using various methods (e.g., 3-F erosion bridge).

1. Manage native perennial range to maintain or increase the level of aerial cover and species diversity that is representative of a late seral stage.

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[redacted]

SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:

- Regular inspections of mineral related activities to assure compliance with plan of operation and permit stipulations.
- Monitoring of streambanks as part of riparian habitat assessments.
- Monitoring of site specific OHMV activities for soil/sediment impacts.
- Periodic inspection of other surface disturbing activities to assure compliance with BMPs.

1. Minimize soil erosion caused by surface disturbing activities through proper timing with regard to soil moisture content and range readiness. Avoid areas sensitive to soil compaction when range projects would result in livestock congregation (water developments, salting areas, gates, etc.). Adjust season-of-use in allotments or pastures sensitive to soil compaction to better protect the soil resource.

2. Prevent or control surface disturbing activities on soils with a high or very high erosion hazard rating by restricting OHMV use, grazing use, road building, timber/juniper harvest, and limiting mechanical range treatments and prescribed fires.

3. Restrict livestock grazing from riparian areas that are displaying moderate to severe bank stabilization problems until monitoring has determined that stabilization has been achieved.

Water Resources

WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

Rationale: Federal government agencies are required to comply with all Federal, State, interstate and local requirements, administrative authority, and process and sanctions in respect to the control and abatement of water pollution. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

[redacted]

1. Limit OHMV use in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

Rationale: The BLM is committed to acquiring state water rights to guarantee future water availability for all public land activities and protest all water right applications by private individuals which may interfere with Bureau water rights.

Monitoring:

- Annual review of new project files and minimum instream flows recommended.

1. Obtain water rights for all water development projects.

2. Protest all water right applications by private individuals which may interfere with Bureau water rights and BLM's mission.

3. Recommend establishment of minimum instream flows on all perennial streams managed by the BLM.

Vegetation

VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods. See Appendix MONT-1 for details concerning procedures.

1. Adjust grazing management practices to improve the vegetation condition to at least good ecological condition (late seral). (Determined by ecological site inventory (ESI).) See Table LVST-A for livestock grazing systems, season-of-use and forage allocations and Table VEGE-2 for estimated ecological status.

[redacted]

2. Evaluate and mitigate potential significant adverse impacts of land exchanges, surface disturbing activities and vegetation treatment on vegetative diversity.

3. Apply approved weed control methods in an integrated plant management program to prevent the invasion of noxious weeds into areas presently free of such weeds and to improve the ecological status of sites which have been invaded by weeds. (Includes burning, mechanical, manual, biological, and chemical control methods as identified in the Vegetation Management EIS (USDI, BLM 1991).)

Riparian-Wetland Areas

RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs the BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and/or conserved to minimize the need for listing as Threatened or Endangered. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters. Water quality is directly related to the health of riparian ecosystems.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Dispose of riparian/wetland areas only if property with greater riparian/wetland value is obtained in the public interest. Disposals will comply with Executive Orders 11988 and 11990.

4. Acquire, where the owner is willing, riparian and wetland areas.

[redacted]

Forest Management

FORS 1: Manage Douglas-fir communities (about 36, 200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Rationale: The Federal Land Policy Management Act 1976 - Section 102(a)(8) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Douglas-fir communities are present on less than 3% of the public lands in the Owyhee Resource Area. Their retention is critical to overall ecological balance, particularly in light of harvesting activities on intermingled State and private lands.

Monitoring:
- Monitoring includes examination for tree pests such as the Douglas-fir tussock moth and site inspections to insure no unauthorized tree removals occur.

1. Manage commercial forest resources to meet future market demands.

2. Use partial cut harvest methods and special yarding systems on fragile sites.

FORS 2: Use juniper harvesting to help achieve a desired plant community.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Juniper harvesting is one of several methods available to control seral juniper encroachment into sagebrush-grassland ecological sites and manage the ecological balance of natural plant communities.

Monitoring:
- Monitoring includes site inspections to insure compliance with the standard woodcutting stipulations such as stumpage height, layout perimeter, slash dispersal and cutting of unauthorized vegetation such as aspen or mountain mahogany.
- Monitoring also includes collection of data concerning the impacts of the woodcut on the understory vegetation. See Appendix MONT-1 for details concerning procedures for vegetation monitoring.

1. Manage harvest of western juniper woodlands in accordance with layout and cutting standards in the Owyhee Juniper Woodland Harvest Management Plan (USDI, BLM October 1987). See Table VEGE-4 and Map FORS-1.

[redacted]

Wildlife Habitat

WDLF 1: Maintain or enhance the condition, abundance structural stage and distribution of plant communities and special habitat features required to support a high diversity and desired populations of wildlife.

Rationale: Section 102.8 of the Federal Land Policy and Management Act states that it is policy of the United States that public lands be managed in a manner that will protect the quality of multiple resources and will provide food and habitat for fish and wildlife and domestic animals. The Public Rangelands Improvement Act (PRIA) directs improvement of rangeland conditions and provides for rangeland improvements including providing habitat for wildlife. The Memorandum of Understanding between the BLM and IDF&G states that the two agencies will work for the common purpose of maintaining, improving and managing wildlife resources on public lands.

Monitoring:

- Monitoring includes collection of utilization, trend, climate, rangeland health assessment, and other data to assess vegetation characteristics as they apply to wildlife species and wildlife habitat objectives.
- Additional monitoring includes use of appropriate techniques such as pellet group counts or breeding bird transects, lek counts, etc. which are applicable to specific types of wildlife. See Appendix MONT-1 for details concerning procedures for various methods.
- Periodically inspect/monitor authorized BLM activities including, but not limited to, range improvement projects, ROWs, OHMV use areas and woodcuts to insure compliance with wildlife stipulations and document observed habitat and animal disturbance. Refer to Table WDLF-1 for a list and estimated acreages of plant communities and special habitats and Table WDLF-2 for estimated acreages and key habitats of major game species.

1. Ensure that all activity plans include objectives for wildlife habitat, if present.

2. Adjust overall grazing management practices to maintain or improve wildlife habitat.

3. Limit deterioration of wildlife habitats and disturbance of wildlife populations by encouraging concentrated but limited OHMV use within the Owyhee Front OHV Management Area and dispersed, limited or open use throughout the remainder of the ORA.

4. Design and implement vegetation treatments to accommodate wildlife habitat requirements and to improve habitat where juniper or sagebrush density is contributing to unsatisfactory habitat conditions.

5. Limit adverse impacts of locatable and fluid mineral exploration and development and mineral materials disposal on wildlife habitat through inclusion of stipulations on mining notices, Plans of Operations and materials leases. See Tables LOCM-A, FLUM-A and MMAT-A.

6. Ensure water availability for wildlife by providing safe access to all livestock waters, requiring that waters are left on following removal of livestock and constructing additional water developments where water is determined to be limiting. Ensure water is available at intervals of no more than three miles apart in pronghorn habitat.

[redacted]

7. Retain all public land within crucial and other high quality wildlife habitats and acquire additional high quality habitat through purchase or exchange with willing landowners. Specifically, retain isolated tracts and perimeter lands adjacent to agricultural areas that provide crucial habitat for pheasant and gray partridge and have the potential of providing cover and food for raptor prey species and wetland/riparian habitat. Isolated tracts will be grazed only if needed for habitat benefits.

8. Continue to protect and enhance deer winter habitat and other important wildlife habitats through strict adherence to and frequent updating of the Boise District Fire Suppression Plan.

9. Minimize barriers to big game movement by constructing new fences and modifying existing fences to meet Boise District Fence policy standards for the species present.

10. Develop cooperative wildlife habitat/farming development (Sikes Act) agreements designed to enhance habitat for upland game and other wildlife.

11. Enhance waterfowl nesting habitat by ensuring waterfowl benefits are incorporated into all reservoirs exceeding one acre in size. Enhancement may include fencing, construction of nesting islands and other structures and planting food and cover species.

12. Limit livestock impacts on riparian habitat within the Crutcher Crossing allotment (0593) by retaining the allotment in nongrazing status.

13. Protect raptor nests and manage adjacent vegetation to ensure adequate habitat for prey species. Authorize no human caused disturbance within a 0.5 mile radius of any known active aerie between March 1 and August 15. Allow no habitat alteration within three miles of any prairie falcon or golden eagle aerie.

14. Ensure that all power poles on public land are designed to prevent raptor electrocution.

15. Ensure that management to maintain or improve habitat for raptors and their prey species receives priority consideration within the Snake River Birds of Prey National Conservation Area as detailed in the SRBOPNCA Management Plan.

Fishery Habitat

FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds and watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Dispose of aquatic/fishery habitat only if lands containing similar habitat of greater value can be obtained in the public interest. Disposals will comply with Executive Orders 11988 and 11990.

4. Acquire, where the owner is willing, water rights, lands or easements to streams or sites where habitats currently support or can be developed to sustain aquatic species.

FISH 2: Improve reservoir fisheries, when appropriate, in consultation with State agencies and adjacent landowners.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations water at a level of quality which provides protection for fish and wildlife.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds and watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Acquire, where the owner is willing, land or easements to existing reservoirs or sites where habitats currently support or can be developed to sustain aquatic species.

[redacted]

Special Status Species

SPSS 1: **Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended. See Tables SPSS-1 and SPSS-2.**

Rationale: Protection and recovery of threatened and endangered species is mandated under the Endangered Species Act of 1973, as amended. BLM Manual 6840 also directs that BLM shall carry out management activities consistent with the principles of multiple-use for the conservation of proposed, candidate, BLM sensitive and State species of special concern species and their habitat. It also directs that BLM shall ensure that any activities authorized, funded or carried out do not contribute to the need to list any species.

Monitoring:
- Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.
- Monitor key populations and habitats or population/habitat objectives as identified in, AMPs or other activity plans.
- Appropriate techniques for special status species may be identified in the wildlife section of Appendix MONT-1 or additional techniques may be required or utilized.

1. Prepare, revise, and implement recovery plans and Habitat Management Plans (HMPs) to protect or improve habitat where conflicts or threats exist to ensure that objectives for special status plant and animal species are met.

2. Protect special status plant and animal species populations and habitats from the adverse impacts of surface disturbing activities, vegetation treatment and land tenure adjustments.

3. Limit deterioration of special status plant and animal species habitat by managing OHMV use as specified in RECT 1:1 for Alternative A.

4. Adjust livestock grazing management, where necessary, to maintain or enhance habitat for special status plant and animal species. This may include development of livestock exclosures or restricted-use pastures where grazing systems cannot otherwise be adjusted to accommodate the habitat requirements of a special status species.

5. Protect bald eagle winter habitat and populations by restricting activities that would result in disturbance to wintering eagles or adversely impact roost trees, prey species or other habitat components.

6. Facilitate the reintroduction of peregrine falcons into suitable nesting habitat within the Owyhee River canyons and other suitable habitats.

7. Limit recreational disturbance to bighorn sheep and other species by not exceeding the interim carrying capacity objectives identified in the Owyhee River Recreation Management Plan.

[redacted]

8. Facilitate the reintroduction and/or natural reestablishment of California bighorn sheep into suitable, unoccupied habitats.

9. Limit livestock impacts to California bighorn sheep by allowing no development of livestock waters or other livestock facilities within one mile of the Owyhee River Bighorn Sheep Habitat Area ACEC unless the potential adverse impacts to bighorn sheep can be avoided or mitigated.

10. Limit livestock impacts to California bighorn sheep by retaining the Crutcher Crossing allotment (0593) in nongrazing status.

11. Maintain suitable grassland nesting habitat for long-billed curlew.

12. Allow no habitat alteration within one mile of any burrowing owl nest and 1.5 miles of any ferruginous hawk nest unless a proposed change can be biologically justified.

13. Protect and enhance habitat for all special status species that are dependent upon aquatic/riparian habitats through implementation of management actions identified in objectives WATR 1, WATR 2, RIPN 1, WDLF 3, FISH 1 and FISH 2. See Table SPSS-2 for a list of special status animal species and their key habitats.

Wild Horse Management

WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

Rationale: The Wild and Free-Roaming Horse and Burro Act of 1971 (PL 92-195) requires the BLM to manage wild free-roaming horses and burros under multiple-use in a manner that is designed to achieve a thriving natural ecological balance on public lands.

Monitoring:

- Monitoring of the vegetation includes collection of rangeland health assessment, actual use, utilization, trend, climate, and ecological site inventory data by various methods.
- Wild horse monitoring also includes collection of data concerning population characteristics. See Appendix MONT-1 for details concerning procedures.

1. Manage and protect wild horses from unauthorized capture, branding, harassment, or death within the Sands Basin, Hardtrigger, and Black Mountain Herd Management Areas (HMAs). See Map WHRS-A and Table WHRS-1A for allotment specific details.

2. Retain inactive status on a portion of the Hardtrigger Herd Area. See Map WHRS-A and Table WHRS-1A for allotment specific details.

3. Allocate forage to wild horses prior to forage allocation to domestic livestock. Allocate forage for the maximum number of wild horses identified. Permanently allocate 2, 329 AUMs to wild horses. Any decrease in forage allocation as a result of range depletion will be proportionate between consumptive uses as determined through monitoring and the AIE process. Allocate any increase in available forage as a result of range improvement or range rehabilitation proportionately to wild horses and livestock. The following is the wild horse current forage allocation (AUMs) by Herd Management Area: Table WHRS-2A for allotment specific details.

	Forage Allocation (AUMs)
Sands Basin:	429
Hardtrigger:	1, 313
Black Mountain:	587
Total:	2, 329

4. Manage wild horse herd population levels within HMAs as shown below in accordance with the results of monitoring studies and allotment evaluations. Adjustments to achieve and maintain objectives for a thriving natural ecological balance and multiple-use relationship will not be lower than the established minimum numbers in order to maintain wild horse herd viability. The appropriate management level will be based on the analysis of trend in range condition, utilization, actual use, and other factors which provide for the protection of the public range lands from deterioration. Table WHRS-2A for allotment specific details.

	AML Range
Sands Basin:	22 - 33
Hardtrigger:	66 - 100
Black Mountain:	30 - 45
Total:	118 - 178

5. Perpetuate characteristics (color, size, type, and conformation) that link the wild horses with their cultural and historical background.

6. Manage OHMV use in HMAs as specified in RECT 1:1 for Alternative A.

Livestock Grazing Management

LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

Rationale: The Taylor Grazing Act directs stabilization of the livestock industry dependent upon public lands. It also directs that action be taken to stop injury to public grazing lands and provide for orderly use. The Federal Land Policy Management Act 1976 - Section 201(1)mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. The Idaho

[redacted]

Standards for Rangeland Health and Guidelines for Livestock Grazing Management are to be used as management goals and management techniques for the betterment of the environment, protection of cultural resources, and sustained productivity of the range.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods.
- Monitoring also includes use supervision and compliance checks. See Appendix MONT-1 for details concerning procedures.

1. Develop long-term rangeland resource management designed to resolve identified issues and achieve management objectives on all allotments categorized as Improve (I) or Maintain (M). See Appendix LVST-1 for allotment resource concerns and objectives and Table LVST-A for livestock season-of-use and grazing systems.

2. Establish initial stocking level at 135, 116 AUMs. Stocking levels will be reviewed and adjusted if necessary in accordance with the results of rangeland health assessments and other monitoring studies every five (5) years for I category allotments and every ten (10) years for M category allotments. Allotment specific initial stocking levels are listed in Table LVST-A. The 20-year stocking level is projected to be 135, 116 AUMs. The average actual use (1988-1997) has been 96, 676 AUMs.

3. Utilize a program of rangeland developments to implement and support achievement of multiple use resource objectives for specific allotments as shown in Table LVST-3.

4. Exclude livestock grazing on 5, 151 acres. Areas excluded from grazing are shown on Map LVST-A.

Fire Management

FIRE 1: Suppress wildfires by taking appropriate management response utilizing the range of acceptable acreage limits listed for each fire management zone (FMZ) within the resource area. The current Fire Management Plan (FMP) is reviewed periodically and may be revised in conformance with RMP. See Map FIRE-1.

FMZ 1.3: (BOP West) less than 200 acres at least 90% of the time (annual grasses).
FMZ 2.7: (Jordan Valley) less than 500 acres at least 90% of the time (perennial grasses; the west side of the Owyhee Resource Area, south to Jordan Valley).
FMZ 2.8: (Salt Desert) less than 200 acres at least 90% of the time (perennial grasses; the foothills north to near the Snake River).
FMZ 3.1: (South Mountain) less than 1, 000 acres at least 90% of the time (woodlands; south of Triangle - Jordan Valley road).
FMZ 3.2: (Silver City) less than 500 acres at least 90% of the time (woodlands; north of the Triangle - Jordan Valley road).
FMZ 3.3: (Wilderness Study Areas) less than 1, 000 acres at least 90% of the time (all WSA's within the Owyhee Resource Area).
FMZ 4.1: (Canyonlands) less than 500 acres at least 75% of the time.

[redacted]

Rationale: The BLM feels that wildfires must have appropriate action taken, using the Fire Management Plan (FMP) and the identified value-at-risk. FMP objectives and value-at-risk are predetermined. Wildfires are evaluated for resource damage, suppression cost plus "net resource value change", and management objectives.

Monitoring:
- Fire occurrence reports, annually, with percentage of wildfires for each FMZ.
- Fire occurrence reports and individual Fire Report for each wildfire annually.
- Annually review fire occurrence report, with the LSRD FMP.

1. Provide initial attack and apply full suppression on all natural and human caused fires to meet suppression standards.

FIRE 2: Decrease soil erosion and sediment yield, restore forage values, and restore upland habitat values and riparian values using fire rehabilitation procedures following a wildfire.

Rationale: The Emergency Fire Rehabilitation (EFR) program calls to mitigate in the most cost-effective and expeditious manner possible, the adverse effects of fire on the vegetation-soil complex, the loss of water control and deterioration of water quality, and the detrimental alteration of crucial wildlife habitats.

Monitoring:
- BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidance for planning monitoring studies associated with emergency rehabilitation treatments.
- At least three growing seasons after treatments are needed for monitoring and evaluations. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Waterbar and seed all firelines constructed on slopes of 25% or more to prevent erosion.

2. Backfill and reseed all firelines constructed by heavy equipment.

3. Apply rehabilitation seed mixtures to meet watershed, wildlife and riparian objectives.

4. Rest all rehabilitated areas, with the exception of firelines, from livestock grazing for at least two growing seasons.

5. Hand or aerial seed native species in wilderness study areas (WSAs) to restore natural vegetation.

6. Conduct watershed reclamation work in WSAs to prevent soil erosion and to avoid impairment of wilderness values.

7. Use rehabilitation techniques in WSAs that are least damaging to wilderness resources.

8. Use staggered or irregular seedings in WSAs to blend with the landscape.

[redacted]

FIRE 3: Restore natural disturbance regime to improve rangeland health and the biodiversity of native plant communities, using the example for a Prescribed Fire Activity Plan, and the example for a Wilderness Fire Activity Plan.

Rationale: Western juniper distribution in the Owyhee Mountains has nearly doubled since 1860. This expansion continues into areas not previously thought to be dominated by juniper such as into sites dominated by deep loamy soils. The increased density of western juniper has and continues to eliminate desirable understory vegetation. Also, there are areas with continual fuels of big sagebrush and western juniper that when ignited under the right conditions, will result in large catastrophic fires resulting in significant loss of wildlife and watershed values. Fire needs to be managed within these areas. Fire should be introduced at times where there is a better likelihood of control and the size of the burn acreage can be limited.

Monitoring:

- Annually review fire occurrences report, with the LSRD FMP. BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidelines for planning monitoring studies. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Use natural and prescribed fire in the ecological communities to treat approximately 1, 400 acres to approximately 9, 000 acres per year. Appendices FIRE-1, FIRE-2, FIRE-3 and FIRE-4.

FIRE 4: Ensure that BLM controlled management actions do not exceed the National Ambient Air Quality Standards by airshed as established in the Clean Air Act and administered by guidelines in the State Implementation Plan (SIP), when in place, and the EPA's "Prescribed Burning Background Document and Technical Information Document for Prescribed Burning Best Available Control Measures" or EPA's Smoke Management BMP.

Rationale: Smoke management is one element (both prevention of significant deterioration (PSD) and total suspended particulates (TSP)) of several elements in the National Ambient Air Quality Standards, established in the Clean Air Act (1967) and amendments to the Act (1972, 1977).

Monitoring:

- Smoke management monitoring will occur under the requirements and guidelines for air quality and smoke management being developed by the State of Idaho.

1. Manage smoke from prescribed fire through techniques of avoidance, dilution and emission reduction.

FIRE 5: Modify standard suppression techniques to protect sensitive resource values.

Rationale: ACECs, WSAs and other sensitive areas contain important resource values. Some resource values could be damaged or destroyed by fire or fire suppression techniques, such as destroying an historical structure in the Silver City area or using a bulldozer to blade over the Oregon Trail. Standard suppression techniques need to be modified to protect these sensitive resource values.

[redacted]

Monitoring:
- Annual fire occurrence reports.

1. Restrict the use of heavy equipment in fireline construction in WSAs, some ACECs, riparian habitat areas, the Silver City and DeLamar Historic Districts and the Oregon Trail. See Appendices FIRE-1, FIRE-2, FIRE-3 and FIRE-4 and Table ACEC-A.

2. Use any and all available fire suppression techniques to protect the Silver City area, cultural ACECs and unique wildlife habitat areas.

Lands

LAND 1: Acquire through exchange, purchase or donation and maintain those lands which have high resource values and which provide for efficient and effective management and administration.

Rationale: Section 202 of FLPMA makes it the policy of the United States that the public lands be retained in Federal ownership. Sections 205 and 206 of FLPMA provide mechanisms for consolidating land ownership patterns through acquisitions and disposals. Consolidated ownership patterns would provide for better land management and administration for both public and non-public landowners. Retention and acquisition of lands in public ownership containing significant resource values would provide for long-term protection and management of those values. Disposal of isolated, unmanageable tracts would provide more efficient use of lands better suited in non-public ownership and concentrate management efforts in significant blocks of public lands.

Monitoring:
- Established Annual Work Plan (AWP) reporting procedures.
- Review access needs on a regular and periodic basis.
- Normal BLM accomplishment tracking process.
- Apply existing resource monitoring procedures on adjacent or comparable lands to newly acquired lands.

1. Manage newly acquired lands for the highest potential purpose for which they were acquired. Manage acquired lands with unique or fragile resources to protect those resources. Manage acquired lands without special values or management goals in the same manner as comparable or adjacent public lands.

LAND 2: Make available for disposal approximately 325,061 acres of public land by sale, exchange, or Recreation & Public Purposes Act during the life of the plan. Retain in federal ownership those lands not identified for disposal.

Rationale: FLPMA 203, 206, 212. Disposal of those lands that are difficult and uneconomic to manage or that would serve important public objectives is important for more efficient overall management of the public lands and community relations.

[redacted]

Monitoring:
- Normal BLM accomplishment tracking processes.

1. Retain all public land in federal ownership, except those lands specifically identified for disposal.

2. Public lands currently under Desert Land (DLE) application that are relinquished or rejected will not be made available for further application for agricultural purposes.

LAND 3: Authorize and manage the use of public lands for rights-of-way, right-of-way reservations, easements, permits, leases, licenses, agreements, etc., except for those areas identified as exclusion areas. Applications for use of the public lands will be evaluated on a case by case basis using current existing procedures.

Rationale: FLPMA 212, 302, 307, 501, 507, 43 CFR 2800 and 2920. Allowing for use of the public lands by providing continuity for use authorizations.

Monitoring:
- Normal BLM accomplishment tracking process.

1. Authorize future rights-of-way that are compatible with existing uses within a distance of one mile on either side of right-of-way I-8857 (500 Kv powerline) and within a distance of one half mile on either side of right-of-way I-013445 (natural gas pipeline).

2. Manage certain areas as rights-of-way avoidance or exclusion areas. See Table ACEC-A and Map LAND-A.

3. Prohibit the following activities on public lands:
    - New public waste disposal sites.
    - New or existing private waste disposal sites.
    - Storage or disposal of hazardous waste.

4. Process applications for rights-of-way, permits, leases, and other realty actions in a timely manner on a site-specific basis utilizing the NEPA process.

LAND 4: Acquire and maintain legal public and/or administrative access to public land consistent with other resource values.

Rationale: Due to the generally fragmented nature of public lands in some parts of the resource area, several critical access points, crossing private lands, lack legal access. Legal access is needed in these areas to ensure continued effective administrative and public use of these lands. This need becomes more acute as public use of these lands increases, and as land owners become more aware of the value of public and private land for recreation and other purposes. Land tenure adjustment actions (exchanges or fee purchases) can be a valuable tool for access acquisitions. However, without careful review, lands actions,

[redacted]

particularly exchanges, can result in lost access. Other tools can also be utilized, such as constructing new roads around lands where access is restricted and the cost of acquisition would exceed the cost of construction or where such acquisition is not feasible.

Monitoring:
- Normal BLM tracking process. Review access needs on a regular basis.

1. Acquire public or administrative access where public demand or an administrative need exists. Place emphasis on providing access to areas containing high resource values. Map LAND-4 for some identified access needs.

2. Ensure that public access is secured or acquired through all land tenure adjustment transactions.

3. Construct new roads around private lands where easement acquisition is not feasible but significant access needs have been identified.

LAND 5: Identify and abate unauthorized use of public lands.

Rationale: FLPMA 102, 303, 43 CFR 9230. The abatement of unauthorized uses protects resource values on the public lands and prevents loss of revenue due the United States.

Monitoring:
- Monitoring will include regular surveillance of lands and resources where a high probability of unauthorized use exists, as well as follow-up on information concerning possible trespass provided by the staff and by the public.
- Normal BLM accomplishment process will be utilized to track implementation of this decision.

1. Detect, confirm and abate, either by authorization or termination, all unauthorized use on public land.

LAND 6: Withdraw certain public land for protection from degradation and protection of identified resource values.

Rationale: Section 204 of FLPMA gives the Secretary the authority to make, modify, extend or revoke withdrawals and mandates review of withdrawals. Bureau Manual 2300 provides guidance. The placement of withdrawals on designated parcels of the public lands segregates them from certain uses to prevent unnecessary and undue degradation of a resource.

Monitoring:
- Normal BLM tracking process.
- Review withdrawals on a regular basis.

1. Withdraw BLM lands shown to contain high resource values and lands that may be damaged or degraded using the existing management directives. See Table LOCM-A.

[redacted]

LAND 7: Provide management prescriptions on those lands that have been returned to BLM management through revocation of withdrawals.

Rationale: FLPMA 204. Bureau Manual 2355 and the Annual Work Plan (AWP) process provides guidance. Lands currently under the jurisdiction of other agencies or lands currently withdrawn for a specific use need a management prescription when that existing withdrawal is revoked.

Monitoring:
- Normal BLM tracking process.

1. Manage lands that have been returned to BLM management through revocation of withdrawals in the same manner as adjacent lands. If returned lands have a significant resource, recreation, wildlife or cultural value, manage those lands for continued protection and enhancement of the value identified.

Locatable Minerals

LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

Rationale: The 1872 Mining Law (30 USC 22 et. seq), along with the Mining and Mineral Policy Act of 1970, declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102, reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. The National Materials and Minerals Policy, Research, and Development Act of 1980 restates the need to implement the 1970 act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making.

Monitoring:
- Regular surveillance to detect and confirm unauthorized mining activity.
- Monitor active mining operations.
- Make periodic inspections consistent with BLM policies.
- Continue the review of all pertinent literature.

1. Manage the public lands in accordance with the provisions of the Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the National Materials and Minerals Policy, Research, and Development Act of 1980 and consistent with other applicable statutory obligations.

2. Manage the areas of high mineral values near DeLamar primarily for their mineral values. See Map LOCM-2.

3. Recommend withdrawal from mineral entry certain recreation areas, certain ACECs, and lands that become designated as Wild, Scenic or Recreational Rivers or Wilderness areas. See Table LOCM-A.

Fluid Minerals

FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

Rationale: The Mineral Leasing Act of 1920 as amended, the Geothermal Steam Act of 1970 as amended, and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal government to foster and encourage private enterprise in the development of domestic mineral resources. FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources.

Monitoring:

- Incorporate stipulations on leases as appropriate.

1. Provide maximum opportunity for leasing, exploration and development of oil & gas and geothermal resources consistent with the protection of other resource values.

2. Close certain areas to fluid mineral leasing to protect identified resource values. See Table FLUM-A.

3. Lease with no surface occupancy, seasonal occupancy and other surface occupancy stipulations certain areas to protect identified resource values. See Table FLUM-A.

Mineral Materials

MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

Rationale: The Materials Act of July 31, 1947 as amended (30 USC 601) and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nations need for domestic sources of minerals and other resources.

Monitoring:

- Geologist and other resource specialists to note unauthorized use, make periodic inspections for authorized use and maintain records in accordance with BLM manuals.

1. Provide for mineral material needs through negotiated sales, free use permits and community pits.

2. Detect, confirm, and abate unauthorized use on the public lands. Effect reclamation of lands damaged by unauthorized use.

3. Close certain areas to mineral material disposal. See Table MMAT-A.

[redacted]

Recreation

RECT 1: Provide for off-highway motor vehicle (OHMV) use on public lands while protecting sensitive resource values.

Rationale: Federal regulations require the BLM to designate all public lands as either open, limited, or closed to off-highway (or off-road) motor vehicle use for the purpose of meeting public demand for OHMV activities, to protect natural resources and the safety of the public, and to minimize conflicts among various user groups. Federal regulations pertaining to OHMV planning include 43 CFR 8342; Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877: February 9, 1977); Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959h; May 25, 1977).

Monitoring:

- Periodic patrols to check designation boundaries, signing, and recreational use.
- In the Owyhee Front SRMA, patrols will be weekly. In the rest of the ORA, patrols will be monthly.
- Establishment of baseline data and photo points to determine impacts of recreation use on soil, water quality, and vegetation resources.
- Rehabilitation of specific sites as necessary.
- Monitoring of administrative activities to ensure compliance with OHMV designations and related motorized access authority/exclusion decisions.

1. Manage OHMV recreational use on public lands in accordance with the following designations: See Maps RECT-1A and RECT-3A.

> Open: Off-highway motorized vehicle use is allowed on all public lands without special restrictions, except as otherwise posted: 420,434 acres.
>
> Limited - Level 1: Off-highway motorized vehicle use is limited to existing roads, jeep trails, motorcycle/ATV trails, and sand washes year-round, except as otherwise posted: 199,224 acres.
>
> Limited - Level 2: Off-highway motorized vehicle use is limited to existing roads and to jeep, motorcycle and ATV trails year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units.) 0 acres.
>
> Limited - Level 3: Off-highway motorized vehicle use is limited to existing roads and jeep trails, and to designated motorcycle and ATV trails year-round, except as otherwise posted. 0 acres.
>
> Limited - Level 4: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; Snowmobiles restricted to designated areas in winter months: 538,682 acres.
>
> Limited - Level 4-IMP: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; if released from wilderness consideration, lands are then managed as "Open": 110,878 acres.

Limited - Level 5: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units.) 0 acres.

Limited - Level 6: Off-highway motorized vehicle use is limited to designated roads and trails year-round; Snowmobiles restricted to designated trails in winter months: 50,773 acres.

Limited - Level 7: Off-highway motorized vehicle use is limited to designated roads and trails (jeep, ATV and/or motorcycle) year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units). 0 acres.

Closed: All lands are closed to off-highway motorized vehicle use year-round. 0 acres.

RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for recreation use of public lands as an integral part of multiple-use management. Dispersed, unstructured activities typify the recreational uses occurring on most public lands. Federal regulations (43 CFR 8300) authorize the BLM to designate administrative units known as special recreation management areas (SRMAs) where there is a need to commit to a higher level of financial investment in recreational facilities and a higher level of managerial presence than is typical of most BLM lands. A SRMA designation signifies a long-term commitment to manage the physical, social, and managerial settings of an area to sustain specific activities and experience opportunities. The delineations are based upon administrative/managerial criteria that reflect congressional designations (such as national wild, scenic or recreational rivers), similar or interdependent recreation values, homogenous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, and public concern.

Monitoring:
- Specific monitoring needs are to be determined during the preparation of SRMA activity plans. These needs will generally include:
  a. Periodic patrols (several times yearly) to check boundaries, signing, and recreational use.
  b. Establishment of baseline data and photo points to determine current impacts from recreational use.
  c. Rehabilitation of specific sites as necessary, including the upgrading and development of recreation facilities.
  d. Development of "Limits of Acceptable Change" studies, where suitable, to help determine appropriate levels and patterns of recreational use, and the influences of other resource uses.

[redacted]

1. Retain the boundaries of ten existing SRMA designations totaling 313, 258 acres. See Map RECT-2A. Manage the SRMAs for identified recreational opportunities and experiences.

- Blackstock: 6,149 acres: Semi-primitive motorized and roaded natural
- Jump Creek: 8,667 acres: Roaded natural and semi-primitive nonmotorized
- North Fork Owyhee Backcountry: 56,593 acres: Primitive and semi-primitive motorized
- North Fork Canyon: 475 acres: Primitive and roaded natural
- Owyhee Front: 181,590 acres: Semi-primitive motorized and roaded natural
- Owyhee Canyonlands: 36,839 acres: Primitive and semi-primitive motorized (additional 5,627 acres in the Bruneau Resource Area). Manage in accordance with Owyhee River Recreation Area Management Plan (USDI-BLM, April 1983), or as amended.
- Upper and Lower Deep Creek: 5,884 acres: Primitive and roaded natural (additional 5,918 acres in the Bruneau Resource Area)
- Silver City: 2,166 acres: Roaded natural and urban
- Oregon National Historic Trail: 7,305 acres: Semi-primitive motorized and roaded natural
- Snake River Birds of Prey: 7,590 acres: Semi-primitive motorized and roaded natural

2. Designate 1,006,733 acres as an extensive recreation management area (ERMA) and manage primarily for semi-primitive motorized and roaded natural opportunities and experiences.

RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Rationale: The National Wild and Scenic Rivers Act (P.L. 90-542), Section 5(d), requires the Secretary of the Interior to identify "river" segments which are eligible to receive consideration as potential wild, scenic, and recreational river areas. Section 5(d) further directs the Secretary to determine which eligible river segments should be evaluated in the BLM planning process "... as alternatives to the developments being planned." This evaluation is referred to as the suitability determination. The procedures by which the BLM determines eligibility and suitability are described in 43 CFR 8351 (Designated National Areas) and the USDI-USDA Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

Monitoring:

- Periodic (several times per year) patrols to check boundaries and affected river corridor lands, signing, and recreational use.
- Establishment of baseline data and photo plots to determine current impacts from recreation use.
- Rehabilitation of specific sites as necessary, including the construction of small recreation sites at launch sites and take-outs, and the construction of portage trails around unrunnable or dangerous rapids.
- Undertake "Limits of Acceptable Change" studies on affected river corridors to determine the appropriate level and pattern of recreation use, and the influences of other resource uses.

[redacted]

1. Recommend to the Secretary of the Interior that 94.0 miles of eligible rivers and streams are suitable for national wild, scenic, or recreational river designation. See Map WSR-A.
   - South Fork Owyhee River: Wild: 26.5 miles
   - South Fork Owyhee River: Recreation: 1.5 miles
   - East Fork Owyhee River: Wild: 66.0 miles

2. Provide for interim protection of wild, scenic, and recreational river values while awaiting a determination by Congress. See Appendix RECT-1 for management standards for the three river classifications.

RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Rationale: The BLM is committed to maintaining recreation facilities to a standard that protects the resource, the public and the public investment, and fosters pride of public ownership, and to developing appropriate recreation facilities, balancing public demand, protection of public land resources, and fiscal responsibility. BLM planning guidance requires the BLM to coordinate with other federal and state plans such as the Idaho Statewide Comprehensive Outdoor Recreation Plan (SCORP) from the Idaho Department of Parks and Recreation and the River Basin Plans of the Idaho Department of Water Resources, and include applicable data and findings in BLM planning documents. Data taken from the Idaho SCORP indicates that overall recreation use in the ORA in 2015 will be 70% above 1995 use levels; placing increased demand on existing recreation facilities and warranting consideration of new sites and facilities.

Monitoring:
- Periodic (bi-weekly, weekly or monthly) patrols by maintenance staff to check facilities and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Maintain existing recreational facilities at four (4) recreation sites (See Map RECT-2A):
   - Hemingway Butte OHV Trailhead
   - Rabbit Creek OHV Trailhead
   - Fossil Creek OHV Trailhead
   - North Fork Campground

2. Upgrade, reconstruct and/or increase recreation facilities at seven (7) recreation sites (See Map RECT-2A):
   - Jump Creek Recreation Site
   - Little Squaw Creek Recreation Site
   - Silver City Campground
   - Ruby Junction Recreation Site
   - Trout Springs Hunter Camp
   - Castlehead Springs Hunter Camp
   - Garat Crossing Recreation Site

[redacted]

3. Construct at least three additional recreation sites:
   - North Fork Owyhee Backcountry trailheads - two sites.
   - Other sites as may be appropriate.

4. Maintain undeveloped recreation sites throughout the Owyhee Resource Area to protect public health and safety.

RECT 5: Develop a trail system that provides a range of motorized and non-motorized recreation opportunities for the public's enjoyment of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural settings.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for the recreational use of public lands as an integral part of multiple-use management. In accordance with this law, the BLM is committed to providing and maintaining a wide diversity of recreation opportunities on public lands, including opportunities to utilize developed trail systems. Idaho's SCORP identifies the role of federal agencies to develop dispersed facilities such as trails to meet existing and projected demand. There is increasing demand by user groups and local government entities to expand the trail system to accommodate a variety of trail opportunities.

Monitoring:
- Periodic patrols by maintenance staff to check trail facilities and recreational use.
- Patrols will be weekly, monthly or several times a year depending on trail location.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.
- Periodic (monthly) patrols of the road corridor to check signing and vehicle use, as well as roadway safety.

1. Establish planning corridors for the consideration of foot/equestrian trail systems to further public opportunities to safely enjoy recreational settings in the following areas:
   - North Fork Owyhee Backcountry SRMA - foot/equestrian travel; utilize necessary bridges to allow for crossing of the river channel at isolated locations during high flow periods.
   - Owyhee Canyonlands SRMA - portage trails around Owyhee Falls and Thread the Needle Rapid on the East Fork Owyhee River.

2. Dedicate and protect the Owyhee Uplands National Back Country Byway's existing roaded natural opportunities. Provide for the upgrading of the Byway to ensure public safety and to enhance recreational opportunities associated with the corridor's roaded natural setting.

3. Maintain existing motorized vehicle opportunities consistent with OHMV designations and subject to congressional wilderness designations.

4. Manage the Oregon National Historic Trail in accordance with the Oregon Trail Comprehensive Management and Use Plan (USDI-NPS, August, 1981) and Oregon Trail Management Plan (USDI-BLM, 1984), or as may be amended.

[redacted]

RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Rationale: BLM is committed to enhancing recreational opportunities through land ownership adjustments, increased and improved access, and other acquisitions.

Monitoring:
- Monitoring of recreational use on affected non-federal properties.
- Monitoring for easement compliance.
- Periodic (bi-weekly) patrols by maintenance staff to check road conditions and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Pursue recreational easements that allow for motorized access.

2. Pursue the purchase (fee title) of properties which would enhance recreation opportunities.

3. Upgrade access roads from dirt to gravel into the North Fork Owyhee Backcountry SRMA trailhead locations.

RECT 7: Retain at least 10% of the ORA in a primitive recreational opportunity (ROS) setting.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102 (8), declares as policy that "...the public lands be managed in a manner that will protect the quality of the scenic resources...that, where appropriate, will preserve and protect certain public lands in their natural condition." At present, only 13% of the ORA retains a primitive setting (Resource Opportunity Spectrum classification).

Monitoring:
- Periodic updating of recreation opportunity spectrum (ROS) inventory.
- Application of ROS consideration through NEPA review.

1. Prohibit construction of new rangeland (livestock, watershed, and wildlife) facilities within the primitive settings of the SRMA lands associated with the Owyhee River system. See Map RECT-1. The affected SRMAs are:
    - North Fork Canyon SRMA.
    - North Fork Owyhee Backcountry SRMA.
    - Owyhee Canyonlands SRMA.
    - Deep Creek SRMA.

[redacted]

Wilderness

WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Rationale: Section 603 of the Federal Land Policy and Management Act (FLPMA) requires that all public lands be inventoried for the presence of wilderness characteristics. Those found to have wilderness characteristics are identified as wilderness study areas (WSAs) and are to be managed for the protection of wilderness values until such time that Congress can act on wilderness suitability recommendations prepared for each WSA. The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992 for submission to the President and Congress. The wilderness study areas in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	50,865
ID-16-41	Big Willow Spring	6,210
ID-16-42	Squaw Creek Canyon	10,780
ID-111(16)-44	Upper Deep Creek	530
ID-16-45	Middle Fork Owyhee River	14,820
ID-16-47	West Fork Red Canyon	12,970
ID-16-48A (OR-3-194)	Lookout Butte	34,400
ID-16-48B (OR-3-195)	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	24,790
ID-16-49A	Owyhee River-Deep Creek	52,090
ID-16-49D	Yatahoney Creek	4,745
ID-16-52	Juniper Creek	5,855
ID-16-53 (NV-010-103A)	South Fork Owyhee River	44,955
Total		298,630

See Map WNES-1 and Table WNES-1 for additional information.

Monitoring:

- Implement generic monitoring standards as specified in the Boise District IMP Plan and the Owyhee IMP Implementation Plan.

1. Ensure that WSA lands and Section 202 study lands remain substantially natural in character, retain outstanding opportunities for solitude and/or primitive recreation experiences, and support supplemental wilderness values.

[redacted]

WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Rationale: The Federal Land Policy and Management Act recognizes wilderness as an integral part of the spectrum of multiple uses of public lands. Lands designated as wilderness are to be managed into perpetuity for the protection of wilderness and other multiple-use values in accordance with the Wilderness Act of 1964 and the BLM's Wilderness Management Policy (September 24, 1981). The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992. The President submitted these wilderness recommendations to Congress in September of 1992. The recommendations for wilderness in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	41,025
ID-16-48B	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	16,330
ID-16-49A	Owyhee River - Deep Creek	47,840
ID-16-49D	Yatahoney Creek	4,425
ID-16-52	Juniper Creek	5,785
ID-16-53	South Fork Owyhee River	44,955
Total		195,980

See Map WNES-1 and Table WNES-2 for additional information.

Monitoring:

- Monitoring needs are to be determined by specific wilderness management plans.

1. Manage designated wilderness so that natural ecological, geological, hydrological, biological and edaphic processes will operate freely.

Visual Resources

VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102(8), declares as policy that public lands will be managed to "... protect the quality of the scenic values... that, where appropriate, will preserve and protect certain public lands in their natural condition." The National Environmental Policy Act (NEPA; P.L. 9-190), Section 101(b), requires federal agencies to "... assure for all Americans... esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "...utilize a systematic, interdisciplinary approach which will ensure the integrated use of ... Environmental Design Acts in the planning and decision making..." process. Guidelines for the identification of VRM classes on public lands is contained in BLM Manual Handbook 8410-1, Visual Resource Inventory. The establishment of VRM areas is based upon an evaluation of the landscapes' scenic qualities, public sensitivity toward certain areas (such as special recreation designations or wilderness), and the location of affected lands from major travel corridors (distance zoning).

[redacted]

Monitoring:

- In VRM Class I and Class II areas, on-site visual quality control inspections will occur at the time of project construction, reconstruction, and maintenance.
- In VRM Class III and IV areas, ongoing quality control inspections of ORA project work in general will be done, however, attendance at specific project sites during construction, reconstruction, and maintenance will not be required.

1. Classify and manage public lands under the following VRM classifications:

Class I:	0 acres
Class II:	298,453 acres
Class II-IMP:	124,842 acres
Class III areas:	146,919 acres
Class IV areas:	749,777 acres

See Map VISL-A.
See Appendix VISL-1 for classification objectives.

Cultural Resources

CULT 1: Protect known cultural resource values from loss until their significance is determined.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Cultural resource sites are deteriorating from the effects of vandalism and neglect.

Monitoring:

- Monitor three cultural resource sites per year to determine site condition and mitigation needs.

1. Mitigate the negative impacts to cultural resource sites known to be suffering the effects of agents of deterioration.

2. Develop management strategies to ensure preservation of cultural resource values within specific areas known to contain concentrations of unique or significant cultural resource sites.

CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

Rationale: The National Historic Preservation Act of 1966 provides for the protection of cultural resource values on land managed by federal agencies and identifies federal agency responsibilities to preserve prehistoric and historic cultural resources.

[redacted]

Monitoring:
- According to schedule outlined in the Oregon Trail Management Plan and the Birds of Prey Cultural Resource Management Plan.
- Make three site visits per year to ensure Silver City homeowner compliance with Owyhee County Historic Preservation Committee recommendations.

1. Protect the integrity of those portions of the eighty mile Oregon Trail and associated cultural resource sites on public land. See Map CULT-1.

2. Manage the existing Silver City, DeLamar and Guffey Butte/Black Butte Historic Districts in accordance with Section 110 of the National Historic Preservation Act of 1966. See Map CULT-1.

3. Manage the existing Guffey Butte/Black Butte Archaeological District ACEC to protect cultural resource values. See Table ACEC-A.

CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Public participation in the preservation process is essential to prevent continued loss of cultural values.

Monitoring:
- Normal BLM accomplishment tracking process.

1. Participate in cooperation with State and other Federal agencies and private entities to conduct public outreach programs including "Archaeology Week" and other cultural resource related events.

Hazardous Materials

HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. Minimize the human health threat and the risk to natural resources from hazardous materials contamination.

Rationale: The Secretary's waste management initiative commits the Bureau to reducing hazardous material situations on public lands. Federal agencies are required to comply with all federal and state laws, regulations and policies regarding hazardous materials on public lands. These include:
- Resource Conservation and Recovery Act (RCRA), As Amended 1976/1980 - 42 USC 6901f.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980 - 42 USC 9601f.
- Federal Water Pollution Control Act (Clean Water Act) 1987 - 33 USC 1251-1387.
- Clean Air Act, As Amended 1977/1990 - 42 USC 7418.
- Federal Land Policy and Management Act, As Amended 1976 - 43 USC 1701f.

[redacted]

Monitoring:

- Periodic review of NEPA documents.
- Field review of compliance.
- Yearly assessment of reported sites.
- Follow-up monitoring to be developed on a case-by-case basis.

1. Ensure that hazardous material and potential hazardous material problems associated with BLM authorized land use actions are identified.

2. Increase law enforcement actions to reduce the amount of illegal disposal of hazardous wastes on public lands.

3. Implement remediation/removal actions for hazardous waste sites in a timely and efficient manner.

Area of Critical Environmental Concern (ACEC)

ACEC 1: Retain existing and designate new Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and where special management is needed to protect the values identified.

Rationale: Section 202 (c)(3) of FLPMA mandates that priority be given to the designation and protection of areas of critical environmental concern. Further guidance and evaluation criteria are found at 43 CFR Part 1610.7-2.

Monitoring:

- Relevant and important values of each designated ACEC would be monitored on a regular schedule to evaluate the effectiveness of management in maintaining those values.

1. Retain the following Areas of Critical Environmental Concern (ACECs) or Outstanding Natural Areas (ONAs): See Map ACEC-A.
    - Guffey Butte/Black Butte Archaeological District ACEC (7,750 acres) (existing ACEC)
    - Owyhee River Bighorn Sheep Habitat Area ACEC (129,763 acres) (existing ACEC)
    - Boulder Creek Outstanding Natural Area (10,741 acres) (existing ONA)
    - North Fork Juniper Woodland Outstanding Natural Area (4,204 acres) (existing ONA)

The total acreage of the four designated areas is 152,458 acres.

2. Manage designated ACECs and ONAs with the special management actions identified in Table ACEC-A.

[redacted]

ALTERNATIVE B

Air Resources

AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

Rationale: The Federal Clean Air Act and State of Idaho regulations require Federal agencies to meet or exceed air quality standards.

Monitoring:
- Review of prescribed burn plan, pre-burn and post-burn calculations of acreage and tonnage on site.
- Annual Work Plan (AWP) identification.
- Maintain accurate records of both acreage and tonnage burned to date.
- Periodic review of NEPA documentation.
- Field review of compliance with mitigating measures.

1. Obtain a determination from appropriate agencies of the maximum tonnage per burning event allowable under air quality standards.

2. Conduct prescribed burning at maximum allowed by Clean Air Act and State regulations until back log of prescribed burns needed to restore appropriate native vegetation is eliminated.

3. Limit unnecessary emissions from existing and new point and nonpoint sources through development and implementation of Best Management Practices (BMPs).

Soil Resources

SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:
- Monitoring includes rangeland health assessments, collection of utilization, trend, climate, and ecological site inventory data by various methods. See Appendix MONT-1 for details concerning some of these procedures.
- Area specific monitoring may be conducted using various methods (e.g., 3-F erosion bridge).

[redacted]

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

2. Establish and implement controls of all noxious weeds and other invasion species which would negatively impact watershed function.

3. Develop and implement an aggressive juniper abatement and control plan for juniper invasion sites.

SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:
- Regular inspections of mineral related activities to assure compliance with plan of operation and permit stipulations.
- Monitoring of streambanks as part of riparian habitat assessments.
- Monitoring of site specific OHMV activities for soil/sediment impacts.
- Periodic inspection of other surface disturbing activities to assure compliance with BMPs.

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments.

Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

[redacted]

2. Minimize and mitigate soil erosion caused by surface disturbing activities on soils with a high or very high erosion hazard rating by including mitigation measures in plans for multiple recreation use, road building, timber harvest, mechanical range treatments, prescribed fires and natural resource development. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups.

3. Develop and implement a Management Plan for wild horses which will prevent and minimize surface disturbance erosion caused by the horses.

4. Develop and implement a Management Plan for wildlife by which consultation with appropriate wildlife control agencies will lead to prevention and minimization of erosion caused by wildlife.

5. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs.

Water Resources

WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

Rationale: Federal government agencies are required to comply with all Federal, State, interstate and local requirements, administrative authority, and process and sanctions in respect to the control and abatement of water pollution. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB. Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

[redacted]

2. Develop and implement an aggressive juniper abatement and control plan for all juniper invasion sites.

3. Implement rangeland improvement programs as identified in the AMP process (See Management Action 1) and implement rangeland improvement programs to achieve multiple use resource objectives in coordination with the Owyhee County Interim Land Use Plan, including, but not limited to water developments, juniper/sagebrush control, rangeland restoration, and weed control.

4. Following wild or prescribed fire, grazing management plans will be developed with close and considered consultation, coordination and cooperation with all affected permittees and affected landowners to provide for use of grazing animal management to enhance recovery.

5. Following fires, provide growing season rest which is adequate to provide for plant vigor recovery.

6. Minimize and mitigate soil erosion caused by surface disturbing activities on soils with a high or very high erosion hazard rating by including mitigation measures in plans for multiple recreation use, road building, timber harvest, mechanical range treatments, prescribed fires and natural resource development. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups.

7. Develop and implement a Management Plan for wild horses which will prevent and minimize surface disturbance erosion caused by the horses.

8. Develop and implement a Management Plan for wildlife by which consultation with appropriate wildlife control agencies will lead to prevention and minimization of erosion caused by wildlife.

WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

Rationale: The BLM is committed to acquiring state water rights to guarantee future water availability for all public land activities and protest all water right applications by private individuals which may interfere with Bureau water rights.

Monitoring:

- Annual review of new project files and minimum instream flows recommended.

1. Claim unappropriated water for domestic use.

2. Consult and coordinate with affected persons engaged in multiple use of BLM administered lands regarding development of recommendation to IDWR as to minimum stream flow.

Vegetation

VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods. See Appendix MONT-1 for details concerning procedures.

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB.

Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

2. Develop and implement an aggressive juniper abatement and control plan for all juniper invasion sites.

3. Provide for suppression or control of all invasion plant species which would negatively impact watershed function.

4. Develop and implement a Management Plan for wildlife by which consultation with appropriate wildlife control agencies will lead to prevention and minimization of erosion caused by wildlife.

5. Develop and implement a management plan for wild horses which will minimize and prevent erosion caused by the horses.

6. Following wild or prescribed fire, Grazing Management Plans will be developed with close and considered consultation, coordination and cooperation with all affected permittees and affected landowners to provide for use of grazing animal management to enhance recovery.

7. Evaluate and mitigate significant adverse impacts of land exchanges, surface disturbing activities and vegetation manipulation.

[redacted]

8. Apply State of Idaho approved noxious weed control methods in an integrated plant management program to prevent the invasion of noxious weeds into areas presently free of such weeds and to improve the ecological status of sites which have been invaded by weeds in coordination with the Owyhee County Weed Control Authority. (Includes burning, mechanical, manual, biological, and chemical control methods as identified in the Vegetation Management EIS (USDI, BLM, 1991).)

9. Develop and implement a Management Plan by which multiple recreation uses can continue to occur compatibly with vegetation development. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups. Planning documents and/or other agreements which alter recreation use for purposes of vegetation development concerns must be formulated through consultation and cooperation with the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM.

10. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs.

Riparian-Wetland Areas

RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs the BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and/or conserved to minimize the need for listing as Threatened or Endangered. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters. Water quality is directly related to the health of riparian ecosystems.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB. Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement

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needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

2. Develop management plans for multiple recreation uses in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups.

3. Following wild or prescribed fire, Grazing Management Plans will be developed with close and considered consultation, coordination and cooperation with all affected permittees and affected landowners to provide for use of grazing animal management to enhance recovery.

4. Reassess riparian/wetland areas and dispose of those which are nonessential.

5. Develop site specific BMPs through AMPs for those waters which have been specifically identified and documented as not meeting beneficial use. BMPs include but are not limited to:

- Prescribed grazing systems
- Off site water development
- Shrub and juniper control
- Livestock salting plans
- Establishment of riparian pastures
- Herding

6. Develop management plans for wild horses and wildlife, by which consultation with appropriate control agencies will result in functional riparian areas.

7. Develop and implement an aggressive juniper abatement and control plan for all juniper invasion sites.

Forest Management

FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Rationale: The Federal Land Policy Management Act 1976 - Section 102(a)(8) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Douglas-fir communities are present on less than 3% of the public lands in the Owyhee Resource Area. Their retention is critical to overall ecological balance, particularly in light of harvesting activities on intermingled State and private lands.

[redacted]

Monitoring:
- Monitoring includes examination for tree pests such as the Douglas-fir tussock moth and site inspections to insure no unauthorized tree removals occur.

1. Where dead and/or decadent trees need to be removed to improve forest health, authority will be given to harvest for lumber and/or salvage fuelwood.

2. Plan and implement reclamation of disturbed forest.

3. Plan and implement selective harvest.

FORS 2: Use juniper harvesting to help achieve a desired plant community.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Juniper harvesting is one of several methods available to control seral juniper encroachment into sagebrush-grassland ecological sites and manage the ecological balance of natural plant communities.

Monitoring:
- Monitoring includes site inspections to insure compliance with the standard woodcutting stipulations such as stumpage height, layout perimeter, slash dispersal and cutting of unauthorized vegetation such as aspen or mountain mahogany.
- Monitoring also includes collection of data concerning the impacts of the woodcut on the understory vegetation. See Appendix MONT-1 for details concerning procedures for vegetation monitoring.

1. Develop and implement an aggressive juniper harvest program.

2. Manage harvest of western juniper woodlands in accordance with layout and cutting standards in the Owyhee Juniper Woodland Harvest Management Plan (1987). See Table VEGE-4 and Map FORS-1.

Wildlife Habitat

WDLF 1: Maintain or enhance the condition, abundance structural stage and distribution of plant communities and special habitat features required to support a high diversity and desired populations of wildlife.

Rationale: Section 102.8 of the Federal Land Policy and Management Act statesthat it is policy of the United States that public lands be managed in a manner that will protect the quality of multiple resources and will provide food and habitat for fish and wildlife and domestic animals. The Public Rangelands Improvement Act (PRIA) directs improvement of rangeland conditions and provides for rangeland improvements including providing habitat for wildlife. The Memorandum of Understanding between the BLM and IDF&G states that the two agencies will work for the common purpose of maintaining, improving and managing wildlife resources on public lands.

[redacted]

Monitoring:

- Monitoring includes collection of utilization, trend, climate, rangeland health assessment, and other data to assess vegetation characteristics as they apply to wildlife species and wildlife habitat objectives.
- Additional monitoring includes use of appropriate techniques such as pellet group counts or breeding bird transects, lek counts, etc. which are applicable to specific types of wildlife. See Appendix MONT-1 for details concerning procedures for various methods.
- Periodically inspect/monitor authorized BLM activities including, but not limited to, range improvement projects, ROWs, OHMV use areas and woodcuts to insure compliance with wildlife stipulations and document observed habitat and animal disturbance. Refer to Table WDLF-1 for a list and estimated acreages of plant communities and special habitats and Table WDLF-2 for estimated acreages and key habitats of major game species.

1. Consult with the Idaho Department of Fish and Game, all affected land owners, lessees and permittees to develop specific wildlife population targets and guidelines for future site specific management plans affecting wildlife habitat.

2. Develop a Management Plan for multiple recreation uses which will minimize and mitigate deterioration of wildlife habitats and disturbance of wildlife populations. Planning documents and/or other agreements which alter recreation use for purposes of wildlife population concerns must be formulated through consultation and cooperation with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups and BLM.

3. Design and implement vegetation treatments to accommodate wildlife habitat requirements and to improve habitat where juniper or sagebrush density is contributing to less-than-desirable or deteriorating habitat conditions.

4. Develop a Management Plan which provides for mitigation measures which allow for alteration or replacement of crucial wildlife habitat due to mining or exploration operations.

5. Construct additional water developments.

6. Plan for and implement prescribed burns to enhance wildlife habitat.

7. New fences must be constructed in accordance with Boise District Fence policy standards for the species present.

8. Where feasible and beneficial improve waterfowl nesting habitat in reservoirs exceeding five (5) acres in size.

9. Ensure that all power poles on BLM administered lands are designed to prevent raptor electrocution.

10. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB.

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Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

11. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs.

Fishery Habitat

FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB.

Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

[redacted]

2. Develop Management Plans for multiple recreational uses in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups.

3. Following wild or prescribed fires, Grazing Management Plans will be developed with close and considered consultation, coordination and cooperation with all affected permittees and affected landowners to provide for use of grazing animal management to enhance recovery.

4. Dispose of habitat areas which are nonessential or substantially unmanageable.

5. Develop site specific BMPs through allotment management plans for those waters which have been specifically identified and documented as not meeting beneficial use. BMPs include but are not limited to:
- Prescribed grazing systems
- Off site water development
- Shrub and juniper control
- Livestock salting plans
- Establishment of riparian pastures
- Herding

6. Develop and implement management plans for wild horses and wildlife, by which consultation with appropriate control agencies will support maintenance of fish habitat.

7. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs.

FISH 2: Improve reservoir fisheries, when appropriate, in consultation with State agencies and adjacent landowners.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations water at a level of quality which provides protection for fish and wildlife.

Monitoring:
- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

[redacted]

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB.

Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

2. Develop Management Plans for multiple recreational uses in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups.

3. Following wild or prescribed fire, Grazing Management Plans will be developed with close and considered consultation, coordination and cooperation with all affected permittees and affected landowners to provide for use of grazing animal management to enhance recovery.

4. Develop habitat management plans for wild horses and wildlife, by which consultation with appropriate control agencies will support functional riparian areas.

5. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs.

Special Status Species

SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended. See Tables SPSS-1 and SPSS-2.

Rationale: Protection and recovery of threatened and endangered species is mandated under the Endangered Species Act of 1973, as amended. BLM Manual 6840 also directs that BLM shall carry out management activities consistent with the principles of multiple-use for the conservation of proposed, candidate, BLM sensitive and State species of special concern species and their habitat. It also directs that BLM shall ensure that any activities authorized, funded or carried out do not contribute to the need to list any species.

[redacted]

Monitoring:

- Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.
- Monitor key populations and habitats or population/habitat objectives as identified in, AMPs or other activity plans.
- Appropriate techniques for special status species may be identified in the wildlife section of Appendix MONT-1 or additional techniques may be required or utilized.

1. In coordination with federal agencies and state and local government planning agencies, develop and implement an endangered and threatened species management plan which includes at least the following elements:

a. Describes and documents endangered and threatened species which exist in the Owyhee Resource Area by specifically documenting the factor or factors specified in 16 U.S.C. §1533(a)(1) which characterize the species as either endangered or threatened.

b. Describes and documents the significant portion of the natural "range of the species" in which the species is endangered or threatened because of the existence of a §1533(a)(1) factor or factors.

c. Describes, reviews and evaluates conservation efforts being made by state and local government planning agencies to protect, minimize and mitigate harm to the endangered or threatened species.

d. Describes and documents site specific critical habitats for the endangered or threatened species in accordance with 16 U.S.C. §1532(5), including a documented rationale for the critical habitat designation.

e. Describes and documents the site specific management actions necessary for the conservation and survival of the endangered or threatened species, documenting the reason why each action is necessary and the manner in which each action is expected to implement conservation and survival of species.

f. Describes and documents multiple use restrictions or limitations necessary for the conservation and survival of the endangered or threatened species, documenting the harm being done or threatened by a particular use or uses and the manner in which each use restriction or limitation is expected to implement conservation and survival of the endangered or threatened species.

g. Establishes and defines the objective, measurable criteria which, when met, would result in a determination that the endangered or threatened species could be removed from the list as endangered or threatened.

h. Estimates and documents the time and cost required to carry out and achieve the goals of the endangered or threatened species management plan.

i. Describes and documents the economic impact in the Owyhee Resource Area of implementing the endangered or threatened species management plan.

2. Base the endangered or threatened species management plan on the best scientific and commercial data available, reviewing such data on at least an annual basis with federal agencies and state and local government planning agencies.

3. In coordination with federal agencies and state and local government planning agencies annually review the endangered or threatened species management plan and its implementation, and at least every five (5) years, review all components of the Plan and implementation to determine whether continuation of site specific management actions are necessary for conservation or survival, and to determine whether the endangered or threatened species listing should be altered.

[redacted]

4. Develop and implement a management plan for wild horses which will minimize and mitigate any damage or threat of damage to the endangered or threatened species caused by the wild horses.

5. Develop and implement a management plan for wildlife by which consultation with appropriate control agencies will minimize and mitigate any damage or threat of damage to the endangered or threatened species caused by wildlife.

6. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium prior allotments; within ten (10) years on all other allotments. See Table LVST-BB.

Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of specific allotments. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

7. Develop a management plan for multiple recreation uses which will minimize and mitigate damage or threat of damage to endangered or threatened species by the multiple recreation uses. Planning documents and/or other agreements which alter recreation use for purposes of soil erosion problems must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups.

8. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs.

9. In coordination with Owyhee County, through the Land Use and Management Planning process, all Special Status Species will be evaluated to determine whether such designation should continue. Within one (1) year a thorough review of and gathering and review of all necessary data will result in decisions on all current Special Status Species. All decisions regarding Special Status Species will be reviewed at five-year intervals to verify need for continuation of listings, or de-listing. Listing Prevention Management Plans for threatened and endangered candidate species and all Special Status Species will be coordinated with Owyhee County through the ongoing Land Use Management Planning process. Any new proposed listing for special status will also be reviewed in coordination with Owyhee County.

[redacted]

Wild Horse Management

WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

Rationale: The Wild and Free-Roaming Horse and Burro Act of 1971 (PL 92-195) requires the BLM to manage wild free-roaming horses and burros under multiple-use in a manner that is designed to achieve a thriving natural ecological balance on public lands.

Monitoring:
- Monitoring of the vegetation includes collection of rangeland health assessment, actual use, utilization, trend, climate, and ecological site inventory data by various methods.
- Wild horse monitoring also includes collection of data concerning population characteristics. See Appendix MONT-1 for details concerning procedures.

1. Protect wild horses from capture, branding, harassment, or death within the Sands Basin, Hardtrigger, and Black Mountain Herd Management Areas. See Map WHRS-B and Table WHRS-1B for allotment specific details.

2. Retain inactive status on a portion of the Hardtrigger Herd Area. See Map WHRS-B and Table WHRS-1B for allotment specific details.

3. Allocate AUMs sufficient to support the appropriate management level at which natural ecological balance and multiple use can be maintained. Any decrease in forage allocation as a result of range depletion when the horses are at or below the appropriate management level will be proportionate between consumptive uses as determined through monitoring and the analysis, interpretation and evaluation process.

4. Manage wild horse herd population levels within Horse Management Areas as shown below in accordance with the results of monitoring studies and allotment evaluations. Adjustments to achieve and maintain a thriving natural ecological balance and multiple-use relationship will not be lower than the established minimum numbers. The appropriate management level will be based on the analysis of trend in range condition, which provides for the improvement or protection of the BLM administered rangelands. See Table WHRS-2B for allotment specific details.

Sands Basin:	22
Hardtrigger:	66
Black Mountain:	30
Total:	118

5. Remove "excess" horses to prevent range deterioration and multiple use conflicts.

6. Constructively plan for and manage compatible multiple recreation uses, cultural and commercial uses which have long coexisted with wild horses in the multiple use relationship.

[redacted]

7. Plan for and establish compatible upgrades of, modifications of and initiation of range improvements such as pipeline development for better water distribution and innovative fencing for range management not restrictive to free-roaming horses.

8. Plan and develop a wild horse management program which will protect soil, water and vegetation resources from deterioration.

9. Plan and establish designated trail systems within Horse Management Areas for compatible recreation and commercial uses so that such uses can continue unabated without harassing wild horses. Planning documents and/or other agreements which alter recreation use for purposes of protecting wild and free-roaming horses must be formulated through coordination with the Owyhee County Land Use Planning Committee which includes OHMV recreationist representative groups. Manage the horses in and around Hemingway Butte and other recreation areas where OHMV use has historically existed so that such use may continue without adverse impact to either the horses or the interests of the OHMV or other managed uses, including grazing interests.

Livestock Grazing Management

LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

Rationale: The Taylor Grazing Act directs stabilization of the livestock industry dependent upon public lands. It also directs that action be taken to stop injury to public grazing lands and provide for orderly use. The Federal Land Policy Management Act 1976 - Section 201(1)mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management are to be used as management goals and management techniques for the betterment of the environment, protection of cultural resources, and sustained productivity of the range.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods.
- Monitoring also includes use supervision and compliance checks. See Appendix MONT-1 for details concerning procedures.

1. Develop and implement AMPs as follows: Within five (5) years on all I category high priority allotments that do not already have current AMPs; within eight (8) years on all I category medium priority allotments; within ten (10) years on all other allotments. See Table LVST-BB.

[redacted]

This will be done to support current active preference on all allotments and support restoration of suspended nonuse on applicable allotments.

Livestock management alternatives and range improvement projects listed in Table LVST-3 are considered a minimum that would be required for an achievement of this objective. They are based on the cursory and preliminary allotment summaries shown in Appendix LVST-1. These assessments are extremely broad and general in nature and are therefore not useful in determining exact and specific livestock management and range improvement needs of each allotment. The development of AMPs for specific allotments will provide for refinement and confirmation of issues and objectives in the allotment summaries, and identification of actions and projects designed to meet specific objectives for each allotment. Each allotment summary in Appendix LVST-1 shall contain this objective.

2. Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and/or in accordance with trend monitoring data completed at five-year intervals following implementation of AMPs. The initial stocking level will be 135,116 AUMs. The 20-year stocking level is projected to be 150,145 AUMs. The average actual use (1988-1997) has been 96,676 AUMs.

3. Implement rangeland improvement programs to achieve multiple use resource objectives, including but not limited to: Water developments; Rangeland restoration; Juniper/Sagebrush control; and Weed control.

4. Develop and implement an aggressive juniper abatement and control plan for juniper invasion sites.

5. Identify and develop off-stream water sources in all sensitive riparian pastures where such opportunities exist.

6. Exclude livestock grazing on 2,985 acres. Areas excluded from grazing are shown on Map LVST-B.

Fire Management

FIRE 1: Suppress wildfires by taking appropriate management response utilizing the range of acceptable acreage limits listed for each fire management zone (FMZ) within the resource area. The current Fire Management Plan (FMP) is reviewed periodically and may be revised in conformance with RMP. See Map FIRE-1.

FMZ 1.3: (BOP West) less than 200 acres at least 90% of the time (annual grasses).
FMZ 2.7: (Jordan Valley) less than 500 acres at least 90% of the time (perennial grasses; the west side of the Owyhee Resource Area, south to Jordan Valley).
FMZ 2.8: (Salt Desert) less than 200 acres at least 90% of the time (perennial grasses; the foothills north to near the Snake River).
FMZ 3.1: (South Mountain) less than 1,000 acres at least 90% of the time (woodlands; south of Triangle - Jordan Valley road).
FMZ 3.2: (Silver City) less than 500 acres at least 90% of the time (woodlands; north of the Triangle - Jordan Valley road).
FMZ 3.3: (Wilderness Study Areas) less than 1,000 acres at least 90% of the time (all WSA's within the Owyhee Resource Area).
FMZ 4.1: (Canyonlands) less than 500 acres at least 75% of the time.

[redacted]

Rationale: The BLM feels that wildfires must have appropriate action taken, using the Fire Management Plan (FMP) and the identified value-at-risk. FMP objectives and value-at-risk are predetermined. Wildfires are evaluated for resource damage, suppression cost plus "net resource value change", and management objectives.

Monitoring:
- Fire occurrence reports, annually, with percentage of wildfires for each FMZ.
- Fire occurrence reports and individual Fire Report for each wildfire annually.
- Annually review fire occurrence report, with the LSRD FMP.

1. Provide initial attack and apply full suppression on all natural and human caused fires to meet suppression standards established in the FMP.

2. Reduce the number and acres of human caused fires in FMZ 1.3 and FMZ 2.8 through prevention and education.

3. Adopt a "let burn" management policy for FMZ 3.1 and 3.2.

FIRE 2: Decrease soil erosion and sediment yield, restore forage values, and restore upland habitat values and riparian values using fire rehabilitation procedures following a wildfire.

Rationale: The Emergency Fire Rehabilitation (EFR) program calls to mitigate in the most cost-effective and expeditious manner possible, the adverse effects of fire on the vegetation-soil complex, the loss of water control and deterioration of water quality, and the detrimental alteration of crucial wildlife habitats.

Monitoring:
- BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidance for planning monitoring studies associated with emergency rehabilitation treatments.
- At least three growing seasons after treatments are needed for monitoring and evaluations. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Waterbar and seed all fire lines constructed on slopes of 25% or more to prevent erosion.

2. Backfill and reseed all fire lines constructed by heavy equipment.

3. Where rehabilitation is necessary use seed mixtures that will meet watershed, wildlife, livestock forage and/or riparian objectives.

4. Conduct watershed reclamation work in WSAs to prevent soil erosion and to mitigate impairment of wilderness values.

5. Following wild or prescribed fire, Grazing Management Plans will be developed with close and considered consultation, coordination and cooperation with all affected permittees and affected landowners to provide for use of grazing animal management to enhance recovery.

FIRE 3: Restore natural disturbance regime to improve rangeland health and the biodiversity of native plant communities, using the example for a Prescribed Fire Activity Plan, and the example for a Wilderness Fire Activity Plan.

Rationale: Western juniper distribution in the Owyhee Mountains has nearly doubled since 1860. This expansion continues into areas not previously thought to be dominated by juniper such as into sites dominated by deep loamy soils. The increased density of western juniper has and continues to eliminate desirable understory vegetation. Also, there are areas with continual fuels of big sagebrush and western juniper that when ignited under the right conditions, will result in large catastrophic fires resulting in significant loss of wildlife and watershed values. Fire needs to be managed within these areas. Fire should be introduced at times where there is a better likelihood of control and the size of the burn acreage can be limited.

Monitoring:

- Annually review fire occurrences report, with the LSRD FMP. BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidelines for planning monitoring studies. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Use natural and prescribed fire in the ecological communities to treat the maximum acreage allowed by the Clean Air Act and state regulations.

2. Review and implement the Boise District Fire Management Activity Plan and the Modified Suppression Plan.

3. Develop and implement an aggressive juniper abatement and control plan for all juniper invasion sites.

FIRE 4: Ensure that BLM controlled management actions do not exceed the National Ambient Air Quality Standards by airshed as established in the Clean Air Act and administered by guidelines in the State Implementation Plan (SIP), when in place, and the EPA's "Prescribed Burning Background Document and Technical Information Document for Prescribed Burning Best Available Control Measures" or EPA's Smoke Management BMP.

Rationale: Smoke management is one element (both prevention of significant deterioration (P.D.) and total suspended particulates (TSP)) of several elements in the National Ambient Air Quality Standards, established in the Clean Air Act (1967) and amendments to the Act (1972,1977).

Monitoring:

- Smoke management monitoring will occur under the requirements and guidelines for air quality and smoke management being developed by the State of Idaho.

1. Manage smoke from prescribed fire through techniques of smoke avoidance, dilution and emission reduction.

[redacted]

FIRE 5: Modify standard suppression techniques to protect sensitive resource values.

Rationale: ACECs, WSAs and other sensitive areas contain important resource values. Some resource values could be damaged or destroyed by fire or fire suppression techniques, such as destroying an historical structure in the Silver City area or using a bulldozer to blade over the Oregon Trail. Standard suppression techniques need to be modified to protect these sensitive resource values.

Monitoring:
- Annual fire occurrence reports.

1. Plan and implement special heavy equipment fire line construction and other fire suppression techniques specifically for WSAs, some ACECs, riparian habitat areas, the Silver City and DeLamar Historic Districts and the Oregon Trail.

Lands

LAND 1: Acquire through exchange, purchase or donation and maintain those lands which have high resource values and which provide for efficient and effective management and administration.

Rationale: Section 202 of FLPMA makes it the policy of the United States that the public lands be retained in Federal ownership. Sections 205 and 206 of FLPMA provide mechanisms for consolidating land ownership patterns through acquisitions and disposals. Consolidated ownership patterns would provide for better land management and administration for both public and non-public landowners. Retention and acquisition of lands in public ownership containing significant resource values would provide for long-term protection and management of those values. Disposal of isolated, unmanageable tracts would provide more efficient use of lands better suited in non-public ownership and concentrate management efforts in significant blocks of public lands.

Monitoring:
- Established Annual Work Plan (AWP) reporting procedures.
- Review access needs on a regular and periodic basis.
- Normal BLM accomplishment tracking process.
- Apply existing resource monitoring procedures on adjacent or comparable lands to newly acquired lands.

1. Develop plans to manage newly acquired lands for multiple use purposes.

2. Give priority consideration to requests for exchanges or purchases from private land owners with fenced federal range, isolated tracts, or irregular boundary lines.

LAND 2: **Make available for disposal approximately 325,061 acres of public land by sale, exchange, Recreation & Public Purposes Act during the life of the plan. Retain in federal ownership those lands not identified for disposal.**

Rationale: FLPMA 203, 206, 212. Disposal of those lands that are difficult and uneconomic to manage or that would serve important public objectives is important for more efficient overall management of the public lands and community relations.

Monitoring:

- Normal BLM accomplishment tracking processes.

1. Identify those BLM administered lands which should be disposed of in the public good. BLM administered lands currently under DLE application or Patent application that are relinquished or rejected will be made available for further application for agricultural or mining purposes.

2. Give priority consideration to requests for exchanges or purchases from private land owners with fenced federal range, isolated tracts, or irregular boundary lines.

LAND 3: Authorize and manage the use of public lands for rights-of-way, right-of-way reservations, easements, permits, leases, licenses, agreements, etc., except for those areas identified as exclusion areas.

Applications for use of the public lands will be evaluated on a case by case basis using current existing procedures.

Rationale: FLPMA 212, 302, 307, 501, 507, 43 CFR 2800 and 2920. Allowing for use of the public lands by providing continuity for use authorizations.

Monitoring:

- Normal BLM accomplishment tracking process.

1. Recognize and honor valid existing rights on the BLM administered lands to avoid use conflicts.

2. Authorize future rights-of-way that are compatible with existing uses within a distance of one mile on either side of right-of-way I-8857 (500 Kv powerline) and within a distance of one half mile on either side of right-of-way I-013445 (natural gas pipeline).

3. When the following activities are proposed for use on the public lands, evaluate and plan for them through NEPA, EIS process:
    - New private waste disposal sites or BLM mandated closure of private waste disposal sites.
    - Disposal of hazardous material.

4. Process applications for rights-of-way, permits, leases, and other realty actions in a timely manner. See Map LAND-B.

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[redacted]

LAND 4: Acquire and maintain legal public and/or administrative access to public land consistent with other resource values.

Rationale: Due to the generally fragmented nature of public lands in some parts of the resource area, several critical access points, crossing private lands, lack legal access. Legal access is needed in these areas to ensure continued effective administrative and public use of these lands. This need becomes more acute as public use of these lands increases, and as land owners become more aware of the value of public and private land for recreation and other purposes. Land tenure adjustment actions (exchanges or fee purchases) can be a valuable tool for access acquisitions. However, without careful review, lands actions, particularly exchanges, can result in lost access. Other tools can also be utilized, such as constructing new roads around lands where access is restricted and the cost of acquisition would exceed the cost of construction or where such acquisition is not feasible.

Monitoring:
- Normal BLM tracking process. Review access needs on a regular basis.

1. Acquire public or administrative access through purchase or exchange where an administrative need exists.

2. Ensure that public access is secured or acquired through all land tenure adjustment transactions.

3. Construct new roads around private lands where easement acquisition is not feasible, but significant access needs have been identified.

LAND 5: Identify and abate unauthorized use of public lands.

Rationale: FLPMA 102, 303, 43 CFR 9230. The abatement of unauthorized uses protects resource values on the public lands and prevents loss of revenue due the United States.

Monitoring:
- Monitoring will include regular surveillance of lands and resources where a high probability of unauthorized use exists, as well as follow-up on information concerning possible trespass provided by the staff and by the public.
- Normal BLM accomplishment process will be utilized to track implementation of this decision.

1. Detect, confirm and abate, either by authorization or termination, unauthorized uses on BLM administered land.

LAND 6: Withdraw certain public land for protection from degradation and protection of identified resource values.

Rationale: Section 204 of FLPMA gives the Secretary the authority to make, modify, extend or revoke withdrawals and mandates review of withdrawals. Bureau Manual 2300 provides guidance. The placement of withdrawals on designated parcels of the public lands segregates them from certain uses to prevent unnecessary and undue degradation of a resource.

[redacted]

Monitoring:
- Normal BLM tracking process.
- Review withdrawals on a regular basis.

1. Withdraw BLM administered lands shown in NEPA evaluations to contain high resource values in lands that will be damaged or degraded without such withdrawal. See Table LOCM-B.

2. Mitigate impact to private property rights or interests.

LAND 7: Provide management prescriptions on those lands that have been returned to BLM management through revocation of withdrawals.

Rationale: FLPMA 204. Bureau Manual 2355 and the Annual Work Plan (AWP) process provides guidance. Lands currently under the jurisdiction of other agencies or lands currently withdrawn for a specific use need a management prescription when that existing withdrawal is revoked.

Monitoring:
- Normal BLM tracking process.

1. Manage lands that have been returned to BLM management through revocation of withdrawals in accordance with new multiple use management plans for those areas.

Locatable Minerals

LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

Rationale: The 1872 Mining Law (30 USC 22 et. seq), along with the Mining and Mineral Policy Act of 1970, declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102, reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. The National Materials and Minerals Policy, Research, and Development Act of 1980 restates the need to implement the 1970 act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making.

Monitoring:
- Regular surveillance to detect and confirm unauthorized mining activity.
- Monitor active mining operations.
- Make periodic inspections consistent with BLM policies.
- Continue the review of all pertinent literature.

[redacted]

1. Manage the BLM administered lands in accordance with the provisions of the Mining and Minerals Policy Act of 1970, the Federal Land Policy & Management Act, and the National Materials and Minerals Policy Research and Development Act of 1980 consistent with other applicable statutory obligations.

2. Manage the Owyhee Resource Area for mineral development in an environmentally responsible manner pursuant to federal, state and local legislation.

3. In coordination with federal agencies and state and local government planning agencies and in cooperation with interested members of the public, develop a land management mineral classification plan to evaluate, classify and inventory the potential for mineral exploration or development in the Owyhee Resource Area to ensure that lands shall remain open and available unless withdrawn through the NEPA process. Active areas, such as the Carson Mining District, would be managed primarily for their high mineral values.

4. Develop an evaluation program which relies upon and uses all available data retrieval and interpretation methods, including, but not limited to: Reviewing existing data, geochemical and geophysical testing, geological mapping and sampling, and, where appropriate, drilling testing.

Fluid Minerals

FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

Rationale: The Mineral Leasing Act of 1920 as amended, the Geothermal Steam Act of 1970 as amended, and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal government to foster and encourage private enterprise in the development of domestic mineral resources. FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources.

Monitoring:
- Incorporate stipulations on leases as appropriate.

1. Provide maximum opportunity for leasing, exploration and development of oil and gas and geothermal resources consistent with the protection of other resource values.

2. In coordination with federal agencies, state and local government planning agencies and in cooperation with interested members of the public, develop a land management plan which outlines occupancy stipulations using importance and relevance planning criteria to ensure that lands shall remain open and available unless withdrawn through the NEPA process. See Table FLUM-B.

[redacted]

Mineral Materials

MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

Rationale: The Materials Act of July 31, 1947 as amended (30 USC 601) and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nations need for domestic sources of minerals and other resources.

Monitoring:

- Geologist and other resource specialists to note unauthorized use, make periodic inspections for authorized use and maintain records in accordance with BLM manuals.

1. Provide for mineral material needs through negotiated sales, free use permits and community pits.

2. Detect, confirm and abate unauthorized use on the BLM administered lands. Effect reclamation of lands damaged by unauthorized use.

3. In coordination with federal agencies and state and local government planning agencies and in cooperation with interested members of the public, develop a land management plan by which to evaluate, classify and inventory the current material minerals and land uses, and the potential for material mineral exploration or development in the Owyhee Resource Area to ensure that lands shall remain open and available unless withdrawn through the NEPA process. See Table MMAT-B.

4. Manage existing sites to develop their full potential for beneficial use by the general public and government agencies.

Recreation

RECT 1: Provide for off-highway motor vehicle (OHMV) use on public lands while protecting sensitive resource values.

Rationale: Federal regulations require the BLM to designate all public lands as either open, limited, or closed to off-highway (or off-road) motor vehicle use for the purpose of meeting public demand for OHMV activities, to protect natural resources and the safety of the public, and to minimize conflicts among various user groups. Federal regulations pertaining to OHMV planning include 43 CFR 8342; Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877: February 9, 1977); Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959h; May 25, 1977).

[redacted]

Monitoring:

- Periodic patrols to check designation boundaries, signing, and recreational use. In the Owyhee Front SRMA, patrols will be weekly. In the rest of the ORA, patrols will be monthly.
- Establishment of baseline data and photo points to determine impacts of recreation use on soil, water quality, and vegetation resources.
- Rehabilitation of specific sites as necessary.
- Monitoring of administrative activities to ensure compliance with OHMV designations and related motorized access authority/exclusion decisions.

1. In coordination with federal agencies and with state and local government planning agencies, and in cooperation with affected public interests, develop and implement a management plan which will include the following:

a. A review and evaluation of all existing open, limited and closed area designations in order to determine whether the existing designations are necessary and appropriate.

b. The determination of appropriateness of the existing designations should be made by evaluating the following criteria:

i. Are the designations and specific limitations and restrictions necessary to minimize or mitigate damage to soil, watershed, vegetation, or other range resources of the lands, identifying and documenting the damage which would be caused without designations and limitations and restrictions, and the manner in which the designations, limitations and restrictions minimize or mitigate the damage.

ii. Are the current designations, limitations and restrictions necessary to minimize or mitigate harassment of wildlife or significant disruption of wildlife habitats, identifying, describing and documenting the harassment and significant disruption which would be caused without the designations and limitations and restrictions, and the manner in which the designations, limitations and restrictions minimize or mitigate the harassment and significant disruption.

iii. Are the current designations necessary to minimize or mitigate conflicts between off-road vehicle use and other recreational uses, and are they necessary to ensure compatibility of off-road vehicle use with existing conditions in the populated areas, identifying, describing and documenting the conflicts or incompatibility which would be caused without the designations and limitations and their limitations and restrictions, and the manner in which the designations, limitations and restrictions minimize or mitigate the conflict or incompatibility.

2. Provide for adequate outdoor recreation resources by revising the designated areas to decrease or eliminate limitations and restrictions where the review and evaluation shows that the limitations and restrictions are no longer appropriate and necessary.

3. Provide for multiple recreation uses as mandated by the Federal Land Policy & Management Act and the Outdoor Recreation Coordination Act by inventorying, evaluating and designating recreational areas and trails in accord with the following:

- Recognize that multiple recreation uses are mandated by the multiple use concept and that adequate outdoor recreation resources must be provided on the BLM administered lands.
- Identify and document damage which each of the multiple recreation uses has caused or threatens to cause to the various land and resource values identified by the Federal Land Policy & Management Act.

[redacted]

- Describe methods of minimizing or mitigating such identified damage and define the manner in which each method is expected to accomplish minimization or mitigation.
- Describe and document harassment to wildlife or substantial damage to wildlife habitats which each of the multiple recreation uses has caused or threatens to cause; and describe methods of minimizing or mitigating such damage, and define the manner in which each such method is expected to accomplish minimization or mitigation.
- Describe and document conflicts which exist or could exist between the various multiple recreation uses, further describe and document any incompatibility with the population which has occurred or could occur from each of the multiple recreation uses, and describe and document those methods of minimizing or mitigating such conflicts and incompatibility, describing and documenting the manner in which each such method is expected to accomplish minimization or mitigation.
- If it is determined after analysis of the best available data that particular areas and trails require limitation or restriction of certain of the multiple recreation uses, describe and document those limitations and restrictions and why they are necessary in order to minimize or mitigate particular damage, harassment, conflict or incompatibility, and provide for implementation of such limitations and restrictions through measures requiring the minimum level of limitation or restriction which will accomplish the necessary protection.

4. Annually evaluate the status of recreation designations, the impact on multiple land use by continuing the designations, and the impact on adequate outdoor recreation resources created by the designations.

5. Utilize the following OHMV designations when classifying open and limited open OHMV use areas:

Level IA - OHMV use is limited to existing roads, jeep trails, ATV and motorcycle trails, and historically used trails, as part of the trail system year-round. Planning documents and/or other agreements which alter recreation use must be formulated through consultation and cooperation with the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM. No restrictions on snowmobile use.

Level IB - OHMV use is limited to existing roads, jeep trails, ATV and motorcycle trails, and historically used trails, and recognizing sand washes as part of the trail system year-round; these trails include historically established OHMV racecourses and such racecourse modifications as determined through consultation and cooperation with the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM. OHMV competitive events are permitted. No restrictions on snowmobile use.

Where drought or saturated wet soil conditions exist, as determined through consultation and cooperation with the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM, historically established racecourses may be modified. Planning documents and/or other agreements which alter recreation use, including historically established racecourses, must be formulated through consultation and cooperation with the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM. In times of saturated wet soil conditions, the racecourses may be modified to run below 4500 feet above sea level. In times of drought, the racecourses may be modified to run above 4500 feet above sea level. Soil and weather condition restrictions may vary among administrative units.

[redacted]

Level IIA - OHMV use is limited to existing roads, jeep trails, ATV and motorcycle trails, and historically used trails, recognizing sand washes as part of the trail system unless conditions of drought or saturated wet soil conditions exist as determined through consultation and cooperation with the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM. Soil and weather condition restrictions may vary among administrative units. Level IIA is for casual OHMV use and does not include OHMV competitive events. No restrictions on snowmobile use.

6. Manage OHMV recreational use on public lands in accordance with the following designations. See Map RECT-1B.

Open: 0 acres.

Level IA: OHMV use limited to existing roads, jeep trails, motorcycle/ATV trails, historically established trails and OHMV racecourses, and recognizing sand washes as part of trail system year-round. No restrictions on snowmobile use. 471,294 acres.

Level IB: OHMV use limited to existing roads, jeep trails, motorcycle/ATV trails, historically established trails and OHMV racecourses, and recognizing sand washes as part of trail system year-round. OHMV competitive events are permitted. Drought or saturated wet soil conditions may be determined to exist as determined through cooperation and consultation with the Owyhee County Land Use Planning Committee, OHMV recreationist groups and BLM. No restrictions on snowmobile use. 370,606 acres.

Level IIA: OHMV use limited to existing roads, jeep trails, motorcycle/ATV trails, historically established trails and OHMV racecourses, and recognizing sand washes as part of trail system year-round. OHMV competitive events are not permitted. Drought or saturated wet soil conditions may be determined to exist as determined through cooperation and consultation with the Owyhee County Land Use Planning Committee, OHMV recreationist groups and BLM. No restrictions on snowmobile use. 189,064 acres.

BLM - Limited - Level 4-IMP(IA): Once the Wilderness IMP designation is released, Level IA is designated for OHMV use. No restrictions on snowmobile use. 289,027 acres.

7. Plan and establish designated equestrian, foot and OHMV trail systems for compatible recreation, commercial, and other multiple uses so that such uses can continue unabated.

[redacted]

RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for recreation use of public lands as an integral part of multiple-use management. Dispersed, unstructured activities typify the recreational uses occurring on most public lands. Federal regulations (43 CFR 8300) authorize the BLM to designate administrative units known as special recreation management areas (SRMAs) where there is a need to commit to a higher level of financial investment in recreational facilities and a higher level of managerial presence than is typical of most BLM lands. A SRMA designation signifies a long-term commitment to manage the physical, social, and managerial settings of an area to sustain specific activities and experience opportunities. The delineations are based upon administrative/managerial criteria that reflect congressional designations (such as national wild, scenic or recreational rivers), similar or interdependent recreation values, homogenous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, and public concern.

Monitoring:

- Specific monitoring needs are to be determined during the preparation of SRMA activity plans. These needs will generally include:
  - a. Periodic patrols (several times yearly) to check boundaries, signing, and recreational use.
  - b. Establishment of baseline data and photo points to determine current impacts from recreational use.
  - c. Rehabilitation of specific sites as necessary, including the upgrading and development of recreation facilities.
  - d. Development of "Limits of Acceptable Change" studies, where suitable, to help determine appropriate levels and patterns of recreational use, and the influences of other resource uses.

1. As part of the multiple Recreation Management Action Plan developed pursuant to objective RECT 1, and in coordination with federal agencies and state and local government planning agencies, review and evaluate the SRMA categories which have been established (Alternative A) in order to determine whether the characteristics which call for special recreational management continue in existence. If the characteristics no longer exist, re-categorize the land to the ERMA level. If the characteristics still exist then redetermine the boundaries for the SRMAs and identify and describe the specific reasons why special management techniques are needed. Refer to Map RECT-2B.

2. In coordination with federal agencies and state and local government planning agencies, and in cooperation with interested members of the public, implement the special management techniques which documentation show to be necessary and provide ongoing evaluation to determine whether the SRMA category should continue, and to determine whether special management needs are being adequately met.

3. In coordination with federal agencies and state and local government planning agencies determine whether establishment of a SRMA constitute a major federal action, and, if so, follow the NEPA process in establishing such areas.

4. Plan and establish designated equestrian, foot and OHMV trail systems for compatible recreation, commercial, and other multiple uses so that such uses can continue unabated.

[redacted]

5. Enter into memoranda of understanding (MOUs) with the Owyhee County Land Use Planning Committee, OHMV representative recreationist groups and BLM with regard to SRMAs where OHMV use historically has taken place to implement management techniques to provide for multiple recreation use which does not adversely conflict with other managed uses.

6. Enter into MOUs with the Owyhee County Land Use Planning Committee, OHMV representative recreationist groups and BLM with regard to extensive management areas where OHMV use historically has taken place to implement management techniques to provide for multiple recreation use which does not adversely conflict with other managed uses.

RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Rationale: The National Wild and Scenic Rivers Act (P.L. 90-542), Section 5(d), requires the Secretary of the Interior to identify "river" segments which are eligible to receive consideration as potential wild, scenic, and recreational river areas. Section 5(d) further directs the Secretary to determine which eligible river segments should be evaluated in the BLM planning process "... as alternatives to the developments being planned." This evaluation is referred to as the suitability determination. The procedures by which the BLM determines eligibility and suitability are described in 43 CFR 8351 (Designated National Areas) and the USDI-USDA Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

Monitoring:
- Periodic (several times per year) patrols to check boundaries and affected river corridor lands, signing, and recreational use.
- Establishment of baseline data and photo plots to determine current impacts from recreation use.
- Rehabilitation of specific sites as necessary, including the construction of small recreation sites at launch sites and take-outs, and the construction of portage trails around unrunnable or dangerous rapids.
- Undertake "Limits of Acceptable Change" studies on affected river corridors to determine the appropriate level and pattern of recreation use, and the influences of other resource uses.

1. Study rivers and segments of rivers for potentiality for designation by the Congress in accord with provisions of the National Wild and Scenic Rivers Act, identifying, describing and documenting the characteristics of the river or river segment and its immediate environment which make it "outstandingly remarkable" as to scenery, recreation opportunities, geologic features, fish and wildlife habitats, historical characteristics, cultural characteristics, or other similar values which can be specifically identified and defined. A recommendation to designate 66 miles of the East Fork Owyhee River as Wild has been forwarded to Congress for consideration. No additional recommendations are identified in this alternative. See Map WSR-B.
East Fork Owyhee River: Wild: 66.0 miles

2. Provide for continued multiple recreation uses as mandated by the Federal Land Policy and Management Act and the Outdoor Recreation Coordination Act while conducting such potentiality studies.

[redacted]

3. Where wild and scenic river designation is established by law, historically established right-of-ways for OHMV and other recreation access crossing shall be maintained.

4. Plan and establish designated equestrian, foot and OHMV trail systems for compatible recreation, commercial, and other multiple uses so that such uses can continue unabated.

RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Rationale: The BLM is committed to maintaining recreation facilities to a standard that protects the resource, the public and the public investment, and fosters pride of public ownership, and to developing appropriate recreation facilities, balancing public demand, protection of public land resources, and fiscal responsibility. BLM planning guidance requires the BLM to coordinate with other federal and state plans such as the Idaho Statewide Comprehensive Outdoor Recreation Plan (SCORP) from the Idaho Department of Parks and Recreation and the River Basin Plans of the Idaho Department of Water Resources, and include applicable data and findings in BLM planning documents. Data taken from the Idaho SCORP indicates that overall recreation use in the ORA in 2015 will be 70% above 1995 use levels; placing increased demand on existing recreation facilities and warranting consideration of new sites and facilities.

Monitoring:
- Periodic (bi-weekly, weekly or monthly) patrols by maintenance staff to check facilities and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Maintain existing facilities at following recreational sites (See Map RECT-2B):
   - Hemingway Butte OHMV Trailhead and surrounding area.
   - Rabbit Creek OHMV Trailhead and surrounding area.
   - Fossil Creek OHMV Trailhead and surrounding area.
   - North Fork Campground and surrounding area.

Certain damaged hillclimb areas may be posted as restricted after proper consultation and coordination between the Owyhee County Land Use Planning Committee, OHMV recreationist representative groups and BLM. Such posting is temporary and must be monitored for opening. It shall be recognized that the Hemingway Butte OHMV Trailhead, the Rabbit Creek OHMV Trailhead, the Fossil Creek OHMV Trailhead, the North Fork Campground, and their respective surrounding areas were established with concentrated OHMV use as an expected impact. These areas should be managed and maintained with the understanding that concentrated OHMV use will be ongoing.

2. Upgrade, reconstruct and/or increase recreation facilities at the following recreation sites (See Map RECT-2B):

- Jump Creek Recreation site and surrounding area.
- Little Squaw Creek Recreation site and surrounding area.
- Silver City Campground and surrounding area.
- Ruby Junction Recreation Site and surrounding area.
- Trout Springs Hunter Camp and surrounding area.
- Castlehead Springs Hunter Camp and surrounding area.
- Garat Crossing Recreation Site and surrounding area.

3. Construct additional recreational facilities or sites as agreed by consultation and coordination between the Owyhee County Land Use Planning Committee, OHMV recreationist groups, other representative recreationist groups, and the BLM. Allow for mountain bike use and appropriate facilities.

RECT 5: Develop a trail system that provides a range of motorized and non-motorized recreation opportunities for the public's enjoyment of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural settings.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for the recreational use of public lands as an integral part of multiple-use management. In accordance with this law, the BLM is committed to providing and maintaining a wide diversity of recreation opportunities on public lands, including opportunities to utilize developed trail systems. Idaho's SCORP identifies the role of federal agencies to develop dispersed facilities such as trails to meet existing and projected demand. There is increasing demand by user groups and local government entities to expand the trail system to accommodate a variety of trail opportunities.

Monitoring:

- Periodic patrols by maintenance staff to check trail facilities and recreational use. Patrols will be weekly, monthly or several times a year depending on trail location.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.
- Periodic (monthly) patrols of the road corridor to check signing and vehicle use, as well as roadway safety.

1. Enter into memoranda of understanding (MOUs) with the Owyhee County Land Use Planning Committee, OHMV representative recreationist groups and BLM with regard to SRMAs where OHMV use historically has taken place to implement management techniques to provide for multiple recreation use which does not adversely conflict with other managed uses.

2. Enter into MOUs with the Owyhee Land Use Planning Committee, OHMV representative recreationist groups and BLM with regard to extensive management areas where OHMV use historically has taken place to implement management techniques to provide for multiple recreation use in accordance with the Oregon Trail Comprehensive Management and Use Plan, National Park Service, and USDI.

RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Rationale: BLM is committed to enhancing recreational opportunities through land ownership adjustments, increased and improved access, and other acquisitions.

Monitoring:
- Monitoring of recreational use on affected non-federal properties.
- Monitoring for easement compliance.
- Periodic (bi-weekly) patrols by maintenance staff to check road conditions and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Pursue public and private easements and rights-of-way which will allow for motorized access for OHMV and other similar recreationist use.

RECT 7: Retain at least 10% of the ORA in a primitive recreational opportunity (ROS) setting.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102 (8), declares as policy that "...the public lands be managed in a manner that will protect the quality of the scenic resources...that, where appropriate, will preserve and protect certain public lands in their natural condition." At present, only 13% of the ORA retains a primitive setting (Resource Opportunity Spectrum classification).

Monitoring:
- Periodic updating of recreation opportunity spectrum (ROS) inventory.
- Application of ROS consideration through NEPA review.

1. Permit construction of new rangeland facilities (livestock, watershed and wildlife) and improvements when necessary for purpose of rangeland protection and effective resource management.

Wilderness

WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Rationale: Section 603 of the Federal Land Policy and Management Act (FLPMA) requires that all public lands be inventoried for the presence of wilderness characteristics. Those found to have wilderness characteristics are identified as wilderness study areas (WSAs) and are to be managed for the protection of wilderness values until such time that Congress can act on wilderness suitability recommendations prepared for each WSA. The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992 for submission to the President and Congress. The wilderness study areas in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	50,865
ID-16-41	Big Willow Spring	6,210
ID-16-42	Squaw Creek Canyon	10,780
ID-111(16)-44	Upper Deep Creek	530
ID-16-45	Middle Fork Owyhee River	14,820
ID-16-47	West Fork Red Canyon	12,970
ID-16-48A (OR-3-194)	Lookout Butte	34,400
ID-16-48B (OR-3-195)	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	24,790
ID-16-49A	Owyhee River-Deep Creek	52,090
ID-16-49D	Yatahoney Creek	4,745
ID-16-52	Juniper Creek	5,855
ID-16-53 (NV-010-103A)	South Fork Owyhee River	44,955
Total		298,630

See Map WNES-1 and Table WNES-1 for additional information.

Monitoring: 1

- Implement generic monitoring standards as specified in the Boise District IMP Plan and the Owyhee IMP Implementation Plan.

1. Plan for and provide for non-degrading range improvement activities.

2. Plan for and provide for non-impairing facilities for public enjoyment of wilderness values.

3. Plan and provide construction, use and maintenance of non-degrading livestock management facilities.

4. Upon a finding of Congress not to designate a Wilderness Study Area as wilderness, then return management policies for that area to those consistent with the non-wilderness full multiple use concept mandated by the Federal Land Policy & Management Act and Public Rangelands Improvement Act.

WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Rationale: The Federal Land Policy and Management Act recognizes wilderness as an integral part of the spectrum of multiple uses of public lands. Lands designated as wilderness are to be managed into perpetuity for the protection of wilderness and other multiple-use values in accordance with the Wilderness Act of 1964 and the BLM's Wilderness Management Policy (September 24, 1981). The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992. The President submitted these wilderness recommendations to Congress in September of 1992. The recommendations for wilderness in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	41,025
ID-16-48B	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	16,330
ID-16-49A	Owyhee River - Deep Creek	47,840
ID-16-49D	Yatahoney Creek	4,425
ID-16-52	Juniper Creek	5,785
ID-16-53	South Fork Owyhee River	44,955
Total		195,980

See Map WNES-1 and Table WNES-2 for additional information.

Monitoring:

- Monitoring needs are to be determined by specific wilderness management plans.

1. Manage designated wilderness in accordance with enabling legislation and the Wilderness Act of 1964.

2. Upon a finding of Congress not to designate a Wilderness Study Area as wilderness, return management policies for that area to those consistent with the non-wilderness full multiple use concept mandated by the Federal Land Policy and Management Act and the Public Rangelands Improvement Act.

Visual Resources

VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102(8), declares as policy that public lands will be managed to "... protect the quality of the scenic values... that, where appropriate, will preserve and protect certain public lands in their natural condition." The National Environmental Policy Act (NEPA; P.L. 9-190), Section 101(b), requires federal agencies to "... assure for all Americans... esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "...utilize a systematic, interdisciplinary approach which will ensure the integrated use of ... Environmental Design Acts in the planning and decision making..." process. Guidelines for the identification of VRM classes on public lands is contained in BLM Manual Handbook 8410-1, Visual Resource Inventory. The establishment of VRM areas is based upon an evaluation of the landscapes' scenic qualities, public sensitivity toward certain areas (such as special recreation designations or wilderness), and the location of affected lands from major travel corridors (distance zoning).

Monitoring:
- In VRM Class I and Class II areas, on-site visual quality control inspections will occur at the time of project construction, reconstruction, and maintenance.
- In VRM Class III and IV areas, ongoing quality control inspections of ORA project work in general will be done, however, attendance at specific project sites during construction, reconstruction, and maintenance will not be required.

1. Classify and manage public lands under the following VRM classifications:

Class I:	0 acres
Class II:	298,453 acres
Class II - IMP:	124,843 acres
Class III areas:	146,918 acres
Class IV areas:	749,777 acres

See Map VISL-B.
See Appendix VISL-1 for classification objectives.

2. In coordination with federal agencies and state and local government planning agencies, and in cooperation with interested members of the public, design and implement a management action plan which provides for reevaluation of current classifications and establishment of classifications based upon specific criteria which comply with the Federal Lands Policy & Management Act.

Cultural Resources

CULT 1: Protect known cultural resource values from loss until their significance is determined.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Cultural resource sites are deteriorating from the effects of vandalism and neglect.

Monitoring:
- Monitor three cultural resource sites per year to determine site condition and mitigation needs.

1. Establish mitigation measures to reduce adverse impacts to certain appropriate sites, and to provide for the protection and conservation of unique cultural resources.

2. Select three (3) cultural resource sites to be evaluated on an annual basis to track any changes in site characteristics such as deterioration or vandalism.

CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

Rationale: The National Historic Preservation Act of 1966 provides for the protection of cultural resource values on land managed by federal agencies and identifies federal agency responsibilities to preserve prehistoric and historic cultural resources.

Monitoring:

- According to schedule outlined in the Oregon Trail Management Plan and the Birds of Prey Cultural Resource Management Plan.
- Make three site visits per year to ensure Silver City homeowner compliance with Owyhee County Historic Preservation Committee recommendations.

1. Protect the integrity of those portions of the Oregon Trail and associated cultural resource sites on BLM administered lands. See Map CULT-1.

2. Manage the existing Silver City, DeLamar, and Guffey Butte/Black Butte Historic Districts in accordance with Section 110 of the National Historic Preservation Act of 1966. See Map CULT-1.

3. Manage the proposed Guffey Butte/Black Butte Archaeological District ACEC to protect cultural resources. See Table ACEC-B.

4. Identify designation criteria for establishment of any archaeological ACEC in accordance with NEPA policies and procedures.

5. Nominate appropriate site/areas to the national register of historic places only in accordance with the policies and procedures outlined in NEPA.

CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Public participation in the preservation process is essential to prevent continued loss of cultural values.

Monitoring:

- Normal BLM accomplishment tracking process.

1. In coordination with Federal agencies and State and local government agencies, and in cooperation with interested members of the public and private entities, provide for public outreach programs including Archaeology Week and other cultural resource related events.

Hazardous Materials

HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. Minimize the human health threat and the risk to natural resources from hazardous materials contamination.

Rationale: The Secretary's waste management initiative commits the Bureau to reducing hazardous material situations on public lands. Federal agencies are required to comply with all federal and state laws, regulations and policies regarding hazardous materials on public lands. These include:

- Resource Conservation and Recovery Act (RCRA), As Amended 1976/1980 - 42 USC 6901f.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980 - 42 USC 9601f.
- Federal Water Pollution Control Act (Clean Water Act) 1987 - 33 USC 1251-1387.
- Clean Air Act, As Amended 1977/1990 - 42 USC 7418.
- Federal Land Policy and Management Act, As Amended 1976 - 43 USC 1701f.

Monitoring:

- Periodic review of NEPA documents. Field review of compliance.
- Yearly assessment of reported sites.
- Follow-up monitoring to be developed on a case-by-case basis.

1. In coordination with federal agencies and state and local government planning agencies and in cooperation with interested members of the public, and utilizing the NEPA process, develop and implement a Management Action Plan which includes the following:
   a. Defines "hazardous materials".
   b. Identifies the presence of hazardous materials on the BLM administered lands.
   c. Catalogs the presence and use of such materials.
   d. Evaluates the presence and use for purposes of determining the lawfulness of the presence and use of such materials.
   e. Provides for elimination or mitigation of unlawful presence and use of hazardous materials.
   f. Prevents incidents where lawful presence and use of hazardous materials is found.

2. Reduce, mitigate or eliminate unlawful disposal of hazardous materials on BLM administered lands.

3. Implement the Management Action Plan in a timely and efficient manner.

Area of Critical Environmental Concern (ACEC)

ACEC 1: Retain existing and designate new Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and where special management is needed to protect the values identified.

Rationale: Section 202 (c)(3) of FLPMA mandates that priority be given to the designation and protection of areas of critical environmental concern. Further guidance and evaluation criteria are found at 43 CFR Part 1610.7-2.

Monitoring:

- Relevant and important values of each designated ACEC would be monitored on a regular schedule to evaluate the effectiveness of management in maintaining those values.

1. In coordination with federal agencies, and state and local government planning agencies, develop and implement an ACEC classification plan utilizing the NEPA, EIS process, to inventory, evaluate and classify ACECs in the Owyhee Resource Area, including within the Plan the following:

   a. Describe the important historic, cultural or scenic value, the fish and wildlife resource, or other natural systems or processes in any proposed ACEC, and describe and document the damage which will occur to such value unless special management attention is given to the area, or describe and document the natural hazards of the area which will endanger life or safety unless special management attention is given.

   b. Describe and document the special management attention which is necessary to protect the proposed area from damage to the statutory value, or to protect life and safety from natural hazards, and quantify the manner in which such special management attention is expected to provide the needed protection.

   c. Review and evaluate existing ACECs in the Owyhee Resource Area, documenting a decision as to whether those areas qualify as ACECs in accordance with federal statutes, and if documentation shows that the areas do so qualify, define and implement the necessary special management attention, and document the NEPA process which was followed in establishing the ACEC. If the NEPA process was not followed, change the status of the ACEC from "existing" to "proposed" and follow the procedures set forth in subparagraphs 1a), 1b) herein above. If the determination is made that the existing ACEC no longer qualifies as an ACEC in accordance with federal statutes, then show the area as being returned to non-ACEC multiple use status.

2. Follow the policy and procedures set forth in the National Environmental Policy Act, including preparation of Area Specific EIS as to any proposed ACEC.

3. In coordination with federal agencies and state and local government planning agencies, annually review the relevance and importance criteria, the ACEC designation status, and recommended protection and special management attention for existing and proposed ACECs. See Map ACEC-B.

4. In developing and implementing the ACEC Management Plan, and in conducting the ongoing evaluation of existing and proposed ACECs, take the following actions:

a. Use a systematic interdisciplinary approach in order to achieve integrated consideration of physical, biological, economic, and other scientific data.

b. Use and observe the principles of multiple use and sustained yield set forth in federal statutory law.

c. Consider present and potential uses of the land.

d. Consider the relative scarcity of the values involved and the availability of alternative means and sites for realization of those values.

e. Weigh long term benefits to the public against short term benefits of the existing or proposed action regarding ACEC status.

5. Annually evaluate the status of the ACECs, the impact on multiple use by continuing the ACEC designation, and the adverse impact of such designation cn the multiple use concept mandated by the Federal Land & Policy Management Act.

6. No ACEC will be created, and no ACEC designation will be continued except in accord and compliance with statutory terms. No special ACEC management shall be initiated or continued except in accord and compliance with statutory terms.

ALTERNATIVE C

Air Resources

AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

Rationale: The Federal Clean Air Act and State of Idaho regulations require Federal agencies to meet or exceed air quality standards.

Monitoring:
- Review of prescribed burn plan, pre-burn and post-burn calculations of acreage and tonnage on site.
- Annual Work Plan (AWP) identification.
- Maintain accurate records of both acreage and tonnage burned to date.
- Periodic review of NEPA documentation.
- Field review of compliance with mitigating measures.

1. Limit prescribed burning in juniper/sagebrush/grassland areas to approximately 9,000 acres (or the equivalent of 60,000 tons of fuels) per year. Limit individual prescribed burns to 3,000 acres with a 72 hour interval before any new burn actions.

2. Limit unnecessary emissions from existing and new point and nonpoint sources by requiring and implementing Best Management Practices (BMPs).

Soil Resources

SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:
- Monitoring includes rangeland health assessments, collection of utilization, trend, climate, and ecological site inventory data by various methods. See Appendix MONT-1 for details concerning some of these procedures.
- Area specific monitoring may be conducted using various methods (e.g., 3-F erosion bridge).

[illegible]

1. Manage native perennial range to maintain or increase the level of aerial cover and species diversity that is representative of a late seral stage.

2. Within two years, approve and implement grazing systems designed to improve riparian condition in all pastures containing riparian areas categorized as unsatisfactory, nonfunctioning, or functional-at risk. Beyond two years in the absence of an approved and implemented grazing system, no livestock use will be authorized beyond July 15 in any year in these pastures. This management action applies to all pastures where professional judgement, inventory data, or monitoring data have indicated the presence of the above condition categories regardless of their size or the relative sizes of the riparian area and the pasture. Future inventory or monitoring may indicate additional pastures to which this management action will apply. Future monitoring may also result in an adjustment to the July 15 date. See Appendix LVST-1 and Table RIPN-1 for affected allotments and Table LVST-C for grazing systems. See Map RIPN-3 for riparian condition.

3. In pastures where the July 15 end-of-grazing-season constraint has been invoked, streambank trampling damage occurring in the current year will not exceed 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). In addition, an overwinter herbaceous stubble will be left in all streamside riparian areas to provide for streambank and channel stability, improved vegetation composition and structure, and hydrologic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made.

SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:

- Regular inspections of mineral related activities to assure compliance with plan of operation and permit stipulations.
- Monitoring of streambanks as part of riparian habitat assessments.
- Monitoring of site specific OHMV activities for soil/sediment impacts.
- Periodic inspection of other surface disturbing activities to assure compliance with BMPs.

1. Minimize soil erosion caused by surface disturbing activities through proper timing with regard to soil moisture content and range readiness. Avoid areas sensitive to soil compaction when range projects would result in livestock congregation (water developments, salting areas, gates, etc.). Adjust season-of-use in allotments or pastures sensitive to soil compaction to better protect the soil resource.

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2. Prevent or control surface disturbing activities on soils with a high or very high erosion hazard rating by restricting OHMV use, grazing use, road building, timber/juniper harvest, and limiting mechanical range treatments and prescribed fires.

3. Within two years, approve and implement grazing systems designed to improve riparian condition in all pastures containing riparian areas categorized as unsatisfactory, nonfunctioning, or functional-at risk. Beyond two years in the absence of an approved and implemented grazing system, no livestock use will be authorized beyond July 15 in any year in these pastures. This management action applies to all pastures where professional judgement, inventory data, or monitoring data have indicated the presence of the above condition categories regardless of their size or the relative sizes of the riparian area and the pasture. Future inventory or monitoring may indicate additional pastures to which this management action will apply. Future monitoring may also result in an adjustment to the July 15 date. See Appendix LVST-1 and Table RIPN-1 for affected allotments and Table LVST-C for grazing systems. See Map RIPN-3 for riparian condition.

4. In pastures where the July 15 end-of-grazing-season constraint has been invoked, streambank trampling damage occurring in the current year will not exceed 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). In addition, an overwinter herbaceous stubble will be left in all streamside riparian areas to provide for streambank and channel stability, improved vegetation composition and structure, and hydrologic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made.

Water Resources

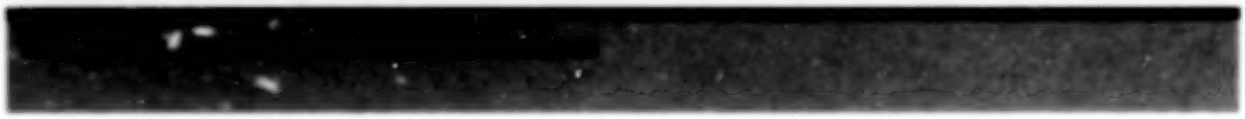
WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

Rationale: Federal government agencies are required to comply with all Federal, State, interstate and local requirements, administrative authority, and process and sanctions in respect to the control and abatement of water pollution. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring.



2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Within two years, approve and implement grazing systems designed to meet or exceed State water quality standards in all pastures containing stream segments with year-round surface water and riparian areas categorized as unsatisfactory, nonfunctioning, or functional-at risk or where State water quality standards are not being met. Beyond two years in the absence of an approved and implemented grazing system, no livestock use will be authorized beyond July 15 in any year in these pastures. This management action applies to all pastures where professional judgement, inventory data, or monitoring data have indicated the presence of the above condition categories regardless of their size or the relative sizes of the riparian area and the pasture. Future inventory or monitoring may indicate additional pastures to which this management action will apply. Future monitoring may also result in an adjustment to the July 15 date. See Appendix LVST-1 and Table RIPN-1 for affected allotments, Table WATR-2 for affected streams and Table LVST-C for grazing systems. See Map RIPN-3 for riparian condition.

4. In pastures where the July 15 end-of-grazing-season constraint has been invoked, streambank trampling damage occurring in the current year will not exceed 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). In addition, an overwinter herbaceous stubble will be left in all streamside riparian areas to provide for streambank and channel stability, improved vegetation composition and structure, and hydrologic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made.

WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

Rationale: The BLM is committed to acquiring state water rights to guarantee future water availability for all public land activities and protest all water right applications by private individuals which may interfere with Bureau water rights.

Monitoring:
- Annual review of new project files and minimum instream flows recommended.

1. Obtain water rights for all water development projects.

2. Protest all water right applications by private individuals which may interfere with Bureau water rights and BLM's mission.

3. Recommend establishment of minimum instream flows on all perennial streams managed by the BLM.

Vegetation

VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods. See Appendix MONT-1 for details concerning procedures.

1. Adjust grazing management practices so that no more than 10% of the native vegetation condition is in an early seral stage and at least 40% is in the late seral or Potential Natural Community (PNC) stage. (Determined by ecological site inventory (ESI). See Table LVST-C for livestock grazing systems, season-of-use and forage allocations and Table VEGE-2 for estimated ecological status.

2. Evaluate and mitigate potential significant adverse impacts of land exchanges, surface disturbing activities and vegetation treatment on vegetative diversity.

3. Apply approved weed control methods in an integrated plant management program to prevent the invasion of noxious weeds into areas presently free of such weeds and to improve the ecological status of sites which have been invaded by weeds. (Includes burning, mechanical, manual, biological, and chemical control methods as identified in the Vegetation Management EIS (USDI, BLM 1991).)

Riparian-Wetland Areas

RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs the BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and/or conserved to minimize the need for listing as Threatened or Endangered. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters. Water quality is directly related to the health of riparian ecosystems.

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Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds, or watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Dispose of riparian/wetland areas only if property with greater riparian/wetland value is obtained in the public interest. Disposals will comply with Executive Orders 11988 and 11990.

4. Acquire, where the owner is willing, riparian and wetland areas.

5. Within two years, approve and implement grazing systems designed to improve riparian condition in all pastures containing riparian areas categorized as unsatisfactory, nonfunctioning, or functional-at risk. Beyond two years in the absence of an approved and implemented grazing system, no livestock use will be authorized beyond July 15 in any year in these pastures. This management action applies to all pastures where professional judgement, inventory data, or monitoring data have indicated the presence of the above condition categories regardless of their size or the relative sizes of the riparian area and the pasture. Future inventory or monitoring may indicate additional pastures to which this management action will apply. Future monitoring may also result in an adjustment to the July 15 date. See Appendix LVST-1 and Table RIPN-1 for affected allotments and Table LVST-C for grazing systems. See Map RIPN-3 for riparian condition.

6. In pastures where the July 15 end-of-grazing-season constraint has been invoked, streambank trampling damage occurring in the current year will not exceed 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). In addition, an overwinter herbaceous stubble will be left in all streamside riparian areas to provide for streambank and channel stability, improved vegetation composition and structure, and hydrologic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made.

Forest Management

FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Rationale: The Federal Land Policy Management Act 1976 - Section 102(a)(8) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Douglas-fir communities are present on less than 3% of the public lands in the Owyhee Resource Area. Their retention is critical to overall ecological balance, particularly in light of harvesting activities on intermingled State and private lands.

Monitoring:

- Monitoring includes examination for tree pests such as the Douglas-fir tussock moth and site inspections to insure no unauthorized tree removals occur.

1. Classify all Douglas-fir forest lands (36,200 acres) as being unavailable for the management of forest products. Forest stands will be retained for biodiversity. Trees will only be cut in response to forest health and safety concerns.

FORS 2: Use juniper harvesting to help achieve a desired plant community.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Juniper harvesting is one of several methods available to control seral juniper encroachment into sagebrush-grassland ecological sites and manage the ecological balance of natural plant communities.

Monitoring:

- Monitoring includes site inspections to insure compliance with the standard woodcutting stipulations such as stumpage height, layout perimeter, slash dispersal and cutting of unauthorized vegetation such as aspen or mountain mahogany.
- Monitoring also includes collection of data concerning the impacts of the woodcut on the understory vegetation. See Appendix MONT-1 for details concerning procedures for vegetation monitoring.

1. Manage harvest of western juniper woodlands in accordance with layout and cutting standards in the Owyhee Juniper Woodland Harvest Management Plan (USDI, BLM October 1987). See Table VEGE-4 and Map FORS-1.

Wildlife Habitat

WDLF 1: Maintain or enhance the condition, abundance structural stage and distribution of plant communities and special habitat features required to support a high diversity and desired populations of wildlife.

Rationale: Section 102.8 of the Federal Land Policy and Management Act states that it is policy of the United States that public lands be managed in a manner that will protect the quality of multiple resources and will provide food and habitat for fish and wildlife and domestic animals. The Public Rangelands Improvement Act (PRIA) directs improvement of rangeland conditions and provides for rangeland improvements including providing habitat for wildlife. The Memorandum of Understanding between the BLM and IDF&G states that the two agencies will work for the common purpose of maintaining, improving and managing wildlife resources on public lands.

Monitoring:
- Monitoring includes collection of utilization, trend, climate, rangeland health assessment, and other data to assess vegetation characteristics as they apply to wildlife species and wildlife habitat objectives.
- Additional monitoring includes use of appropriate techniques such as pellet group counts or breeding bird transects, lek counts, etc. which are applicable to specific types of wildlife. See Appendix MONT-1 for details concerning procedures for various methods.
- Periodically inspect/monitor authorized BLM activities including, but not limited to, range improvement projects, ROWs, OHMV use areas and woodcuts to insure compliance with wildlife stipulations and document observed habitat and animal disturbance. Refer to Table WDLF-1 for a list and estimated acreages of plant communities and special habitats and Table WDLF-2 for estimated acreages and key habitats of major game species.

1. Ensure that all activity plans include objectives for wildlife habitat, if present.

2. Adjust overall grazing management practices to maintain or improve wildlife habitat. Limit livestock use of key browse species to 30% within crucial deer winter habitat.

3. Limit habitat deterioration and disturbance to wildlife by managing OHMV use as specified in section Objective: RECT 1:, Alternative C, Action 1.

4. Design and implement vegetation treatments to accommodate wildlife habitat requirements, improve habitat where juniper or sagebrush density is contributing to unsatisfactory habitat conditions, maintain scarce, unique and highly productive habitat types and retain large interconnected blocks of more common habitat types. Reseed, where necessary, with a variety of shrubs, forbs and grasses and rest all burns and seedings from livestock grazing for a minimum of two years following treatment.

5. Limit adverse impacts of locatable and fluid mineral exploration and development and mineral materials disposal on wildlife habitat through inclusion of stipulations on mining notices, Plans of Operations and materials leases. See Tables LOCM-C, FLUM-C and MMAT-C.

6. Ensure water availability for big game by providing unrestricted access to all livestock waters, requiring that waters are left on following removal of livestock and constructing additional water developments where water is determined to be limiting. Ensure water is available at intervals of no more than three miles apart in big game habitat.

7. Retain all public land within crucial and other high quality wildlife habitats and acquire additional high quality habitat through purchase or exchange with willing landowners. Specifically, retain isolated tracts and perimeter lands adjacent to agricultural areas that provide crucial habitat for pheasant and gray partridge and have the potential to provide cover and food for raptor prey species, all public lands within two miles of active leks, all public lands containing wetland/riparian habitat unless exchanging for habitat of equal or greater resource values. Isolated tracts will be grazed only if needed to maintain or improve wildlife habitat.

8. Continue to protect and enhance deer winter habitat and other important wildlife habitats through strict adherence to and frequent updating of the Boise District Fire Suppression Plan.

9. Minimize barriers to big game movement by constructing new fences and modifying existing fences to meet Boise District Fence Policy standards for the species present.

10. Protect and enhance habitat for upland game and other wildlife at developed springs and selected wet meadows, reservoirs and stream riparian reaches by fencing to exclude livestock. Close all exclosures to livestock grazing for the life of this plan except where it is determined that controlled grazing is necessary to achieve a specific resource objective.

11. Develop cooperative wildlife habitat/farming development (Sikes Act) agreements designed to enhance habitat for upland game and other wildlife.

12. Evaluate and facilitate the introduction of additional wild turkeys into suitable habitat.

13. Enhance waterfowl nesting habitat by ensuring waterfowl benefits are incorporated into all reservoirs with the potential to support nesting waterfowl. Enhancement may include fencing, construction of nesting islands and other structures and planting food and cover species.

14. Protect and enhance riparian habitat within the Crutcher Crossing allotment (0593) by closing the allotment to livestock grazing.

15. Protect raptor nests and manage adjacent vegetation to ensure adequate habitat for prey species. Allow no human caused disturbance within a 0.5 mile radius of any known golden eagle nest between February 1 and June 30 and other species' nests between March 15 and June 30. Disturbance is defined as any activity which could result in frequent flushing of adults or young, nest abandonment or significant loss of prey base.

16. Ensure that all power poles on public land are designed to prevent raptor electrocution.

17. Ensure that management to maintain or improve habitat for raptors and their prey species receives priority consideration within the Snake River Birds of Prey National Conservation Area as detailed in the SRBOPNCA Management Plan.

Fishery Habitat

FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds and watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Dispose of aquatic/fishery habitat only if lands containing similar habitat of greater value can be obtained in the public interest. Disposals will comply with Executive Orders 11988 and 11990.

4. Acquire, where the owner is willing, water rights, lands or access to streams or sites where habitats currently support or can be developed to sustain aquatic species.

5. Within two years, approve and implement grazing systems designed to improve native fish habitat in all pastures containing stream reaches categorized as unsatisfactory, nonfunctioning, or functional-at risk riparian areas or unsatisfactory fish habitat. Beyond two years in the absence of an approved and implemented grazing system, no livestock use will be authorized beyond July 15 in any year in these pastures. This management action applies to all pastures where professional judgement, inventory data, or monitoring data have indicated the presence of the above condition categories regardless of their size or the relative sizes of the riparian area and the pasture. Future inventory or monitoring may indicate additional pastures to which this management action will apply. Future monitoring may also result in an adjustment to the July 15 date. See Appendix LVST-1 and Table RIPN-1 for affected allotments, Map RIPN-4 for affected pastures, and Table LVST-C for grazing systems. See Map RIPN-3 and FISH-1 for riparian and fish habitat condition.

6. In pastures where the July 15 end-of-grazing-season constraint has been invoked, streambank trampling damage occurring in the current year will not exceed 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). In addition, an overwinter herbaceous stubble will be left in all streamside riparian areas to provide for streambank and channel stability, improved vegetation composition and structure, and hydro-

logic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made.

FISH 2: Improve reservoir fisheries, when appropriate, in consultation with State agencies and adjacent landowners.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations water at a level of quality which provides protection for fish and wildlife.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Limit OHMV use in high erosion hazard watersheds and watersheds where accelerated erosion is occurring.

2. Provide a minimum of two growing seasons rest from livestock grazing following fires.

3. Acquire, where the owner is willing, lands or easements to existing reservoirs or sites where habitats currently support or can be developed to sustain aquatic species.

4. Within two years, approve and implement grazing systems designed to improve riparian habitat and/or native fish habitat in all pastures containing stream reaches or reservoirs categorized as unsatisfactory, nonfunctioning, or functional-at risk riparian areas or unsatisfactory fish habitat. In the absence of an approved and implemented grazing system, no livestock use will be authorized beyond July 15 in any year in these pastures. This management action applies to all pastures where professional judgement, inventory data, or monitoring data have indicated the presence of the above condition categories regardless of their size or the relative sizes of the riparian area and the pasture. Future inventory or monitoring may indicate additional allotments to which this management action will apply. See Appendix LVST-1 and Table RIPN-1 for affected allotments, Map RIPN-4 for affected pastures, and Table LVST-C for grazing systems. See Map RIPN-3 and FISH-1 for riparian and fish habitat condition.

5. In pastures where the July 15 end-of-grazing-season constraint has been invoked, soil trampling damage occurring in the current year will not exceed 25% of the linear length of the reservoir bank. In addition, an overwinter herbaceous stubble will be left in all riparian areas to provide for soil and channel stability, improved vegetation composition and structure, and hydrologic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made

Special Status Species

SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended. See Tables SPSS-1 and SPSS-2.

Rationale: Protection and recovery of threatened and endangered species is mandated under the Endangered Species Act of 1973, as amended. BLM Manual 6840 also directs that BLM shall carry out management activities consistent with the principles of multiple-use for the conservation of proposed, candidate, BLM sensitive and State species of special concern species and their habitat. It also directs that BLM shall ensure that any activities authorized, funded or carried out do not contribute to the need to list any species.

Monitoring:

- Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.
- Monitor key populations and habitats or population/habitat objectives as identified in, AMPs or other activity plans.
- Appropriate techniques for special status species may be identified in the wildlife section of Appendix MONT-1 or additional techniques may be required or utilized.

1. Prepare, revise, and implement recovery plans and Habitat Management Plans (HMPs) to protect or improve habitat where conflicts or threats exist to ensure that objectives for special status plant and animal species are met.

2. Protect special status plant and animal species populations and habitats from the adverse impacts of surface disturbing activities, vegetation treatment and land tenure adjustments.

3. Limit deterioration of special status plant and animal species and their habitats by managing OHMV use as specified in RECT 1:1 for Alternative C.

4. Adjust livestock grazing management, where necessary, to maintain or enhance habitat for special status plant and animal species. This may include development of livestock exclosures or restricted-use pastures where grazing systems cannot otherwise be adjusted to accommodate the habitat requirements of a special status species.

5. Protect bald eagle winter habitat and populations by restricting activities that would result in disturbance to wintering eagles or adversely impact roost trees, prey species or other habitat components.

6. Enhance bald eagle winter habitat by planting additional roost trees.

7. Facilitate the reintroduction/expansion of peregrine falcons into suitable nesting habitat within the Owyhee River canyons and other suitable habitats.

8. Limit recreational disturbance to bighorn sheep and other species by not exceeding the interim carrying capacity objectives identified in the Owyhee River Recreation Management Plan.

9. Facilitate the reintroduction and natural reestablishment of California bighorn sheep into suitable, unoccupied canyon habitats.

10. Limit livestock impacts to California bighorn sheep by allowing no development of livestock waters or other livestock facilities within one mile of the Owyhee River Bighorn Sheep Habitat Area ACEC unless potential adverse impacts can be avoided or mitigated.

11. Protect and enhance California bighorn sheep and aquatic/riparian species habitat by closing the Crutcher Crossing allotment (0593) to livestock grazing.

12. Maintain suitable grassland nesting habitat for long-billed curlew.

13. Reduce the potential for disease transmission between domestic sheep and California bighorn sheep.

14. Construct artificial nesting platforms for ferruginous hawks in areas where suitable nesting sites are determined to be limiting.

15. Protect all existing and potential northern goshawk nesting habitat by retaining all aspen and mixed conifer habitat types in public ownership, and allowing no prescribed burning or logging and providing full fire suppression in mixed conifer habitats.

16. Facilitate reintroduction of sharptail grouse and mountain quail into suitable habitats. Adjust livestock grazing and other management practices to maintain suitable habitat following reintroduction.

17. Acquire additional high quality habitat through purchase or exchange with willing landowners to enhance management for special status species.

18. Protect and enhance habitat for all special status species that are dependant upon aquatic/riparian habitats through implementation of management actions identified in objectives WATR 1, WATR 2, RIPN 1, WDLF 3, FISH 1 and FISH 2. See Table SPSS-2 for a list of special status animal species and their key habitats.

Wild Horse Management

WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

Rationale: The Wild and Free-Roaming Horse and Burro Act of 1971 (PL 92-195) requires the BLM to manage wild free-roaming horses and burros under multiple-use in a manner that is designed to achieve a thriving natural ecological balance on public lands.

Monitoring:

- Monitoring of the vegetation includes collection of rangeland health assessment, actual use, utilization, trend, climate, and ecological site inventory data by various methods.
- Wild horse monitoring also includes collection of data concerning population characteristics. See Appendix MONT-1 for details concerning procedures.

1. Manage wild horses at appropriate management levels (AML) in the Hardtrigger and Black Mountain Herd Management Areas (HMAs). See Map WHRS-C and Table WHRS-1C for allotment specific details.

2. Designate inactive status on the Sands Basin and a portion of the Hardtrigger and Black Mountain Herd Areas and designate a portion of the Hardtrigger Wild Horse Herd Management Area as a wild horse range. See Map WHRS-C and Table WHRS-1C for allotment specific details.

3. Allocate forage for wild horses at the upper end of the AML range. Allocate any increase in available forage as a result of range improvements or range rehabilitation proportionately to wild horses and other grazing uses (primarily livestock). Any decrease in forage allocation as a result of range depletion will be proportionate between consumptive uses as determined through monitoring and the AIE process. Limit utilization on approximately 67,797 acres of wild horse winter range to less than or equal to 40% during the domestic livestock grazing season and 50% for the year. Remove domestic livestock AUMs on approximately 6,280 acres of public lands. Relocate domestic livestock AUMs in the Rats Nest allotment to the Sands Basin allotment; within the Shares Basin allotment the wild horse AUMs will be located in the Squaw Creek Canyon area (1,400 acres) and the domestic livestock AUMs will be located in the remaining 2,648 acres of that pasture.) The following is the wild horse forage allocation (AUMs) by Herd Management Area: See Table WHRS-2C for allotment specific details.

	Allocation (AUMs)
Hardtrigger:	1,742
Black Mountain:	587
Total:	2,329

4. Manage wild horse herd population levels within HMAs at the AML shown below. See Table WHRS-2C for allotment specific details.

	AML Range
Black Mountain:	30 - 45
Hardtrigger:	88 - 133
Total:	118 - 178

[redacted]

5. Perpetuate characteristics (color, size, type, and conformation) that link the wild horses with their cultural and historical background.

6. Manage and limit public use (including OHMV use and equestrian use) in HMAs to protect wild and free roaming horses.

7. Adjust the AML range of the wild horses on the basis of monitoring to ensure a thriving natural ecological balance within the HMAs.

8. Acquire legal access to specific sources of private land and water upon which wild horses may depend. Retain all Federal land within the Herd Areas. Acquire State and private land, from willing landowners, within the Herd Areas that ensures the integrity of individual herds.

9. Upgrade, modify, or remove range improvements that impact normal distribution or movement of wild horses. Design range improvement facilities so as not to increase the competition between consumptive users or impact the free-roaming behavior of the wild horse. Make new vegetation treatment areas available for wild horse grazing after a minimum of two growing seasons.

Livestock Grazing Management

LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

Rationale: The Taylor Grazing Act directs stabilization of the livestock industry dependent upon public lands. It also directs that action be taken to stop injury to public grazing lands and provide for orderly use. The Federal Land Policy Management Act 1976 - Section 201(1)mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management are to be used as management goals and management techniques for the betterment of the environment, protection of cultural resources, and sustained productivity of the range.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods.
- Monitoring also includes use supervision and compliance checks. See Appendix MONT-1 for details concerning procedures.

[redacted]

1. Develop long-term rangeland resource management designed to resolve identified issues and achieve management objectives on all allotments categorized as Improve (I) or Maintain (M) . See Appendix LVST-1 for allotment resource concerns and objectives, and Table LVST-C for livestock season-of-use and grazing systems.

2. Establish initial stocking level at 87,121 AUMs. Stocking levels will be reviewed and adjusted if necessary in accordance with the results of rangeland health assessments or other monitoring studies every five (5) years for I category allotments and every ten (10) years for M category allotments. Allotment specific initial stocking levels are listed in Table LVST-C. The 20-year stocking level is projected to be 87,121 AUMs. The average actual use (1988-1997) has been 96,676 AUMs.

3. Utilize a program of rangeland developments to implement and support achievement of multiple use resource objectives for specific allotments as shown in Table LVST-C.

4. Exclude livestock grazing on 14,274 acres. Areas excluded from grazing are shown on Map LVST-C.

Fire Management

FIRE 1: Suppress wildfires by taking appropriate management response utilizing the range of acceptable acreage limits listed for each fire management zone (FMZ) within the resource area. The current Fire management Plan (FMP) is reviewed periodically and may be revised in conformance with RMP. See Map FIRE-1.

FMZ 1.3:	(BOP West) less than 200 acres at least 90% of the time (annual grasses).
FMZ 2.7:	(Jordan Valley) less than 500 acres at least 90% of the time (perennial grasses; the west side of the Owyhee Resource Area, south to Jordan Valley).
FMZ 2.8:	(Salt Desert) less than 200 acres at least 90% of the time (perennial grasses; the foothills north to near the Snake River).
FMZ 3.1:	(South Mountain) less than 1,000 acres at least 90% of the time (woodlands; south of Triangle - Jordan Valley road).
FMZ 3.2:	(Silver City) less than 500 acres at least 90% of the time (woodlands; north of the Triangle - Jordan Valley road).
FMZ 3.3:	(Wilderness Study Areas) less than 1,000 acres at least 90% of the time (all WSA's within the Owyhee Resource Area).
FMZ 4.1:	(Canyonlands) less than 500 acres at least 75% of the time.

Rationale: The BLM feels that wildfires must have appropriate action taken, using the Fire Management Plan (FMP) and the identified value-at-risk. FMP objectives and value-at-risk are predetermined. Wildfires are evaluated for resource damage, suppression cost plus "net resource value change", and management objectives.

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[redacted]

Monitoring:
- Fire occurrence reports, annually, with percentage of wildfires for each FMZ.
- Fire occurrence reports and individual Fire Report for each wildfire annually.
- Annually review fire occurrence report, with the LSRD FMP.

1. Provide initial attack and apply full suppression on all natural and human caused fires to meet suppression standards established in the FMP.

2. Reduce the number and acres of human caused fires in FMZ 1.3 and FMZ 2.8 through prevention and education.

3. Reduce suppression standard from 1,000 acres to 100 acres within the wild horse herd management area.

FIRE 2: Decrease soil erosion and sediment yield, restore forage values, and restore upland habitat values and riparian values using fire rehabilitation procedures following a wildfire.

Rationale: The Emergency Fire Rehabilitation (EFR) program calls to mitigate in the most cost-effective and expeditious manner possible, the adverse effects of fire on the vegetation-soil complex, the loss of water control and deterioration of water quality, and the detrimental alteration of crucial wildlife habitats.

Monitoring:
- BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidance for planning monitoring studies associated with emergency rehabilitation treatments.
- At least three growing seasons after treatments are needed for monitoring and evaluations. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Waterbar and seed all firelines constructed on slopes of 25% or more to prevent erosion.

2. Backfill and reseed all firelines constructed by heavy equipment.

3. Apply rehabilitation seed mixtures to meet watershed, wildlife and riparian objectives.

4. Rest all rehabilitated areas, with the exception of firelines, from livestock grazing for at least two growing seasons.

5. Hand or aerial seed native species in WSAs to restore natural vegetation,

6. Conduct watershed reclamation work in WSAs to prevent soil erosion and to avoid impairment of wilderness values.

7. Use rehabilitation techniques in WSAs that are least damaging to wilderness resources, and

8. Use staggered or irregular seedings in WSAs to blend with the landscape.

FIRE 3: Restore natural disturbance regime to improve rangeland health and the biodiversity of native plant communities, using the example for a Prescribed Fire Activity Plan, and the example for a Wilderness Fire Activity Plan.

Rationale: Western juniper distribution in the Owyhee Mountains has nearly doubled since 1860. This expansion continues into areas not previously thought to be dominated by juniper such as into sites dominated by deep loamy soils. The increased density of western juniper has and continues to eliminate desirable understory vegetation. Also, there are areas with continual fuels of big sagebrush and western juniper that when ignited under the right conditions, will result in large catastrophic fires resulting in significant loss of wildlife and watershed values. Fire needs to be managed within these areas. Fire should be introduced at times where there is a better likelihood of control and the size of the burn acreage can be limited.

Monitoring:

- Annually review fire occurrences report, with the LSRD FMP. BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidelines for planning monitoring studies. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Use natural and prescribed fire in the ecological communities to treat approximately 1,400 acres to approximately 9,000 acres per year.

FIRE 4: Ensure that BLM controlled management actions do not exceed the National Ambient Air Quality Standards by airshed as established in the Clean Air Act and administered by guidelines in the State Implementation Plan (SIP), when in place, and the EPA's "Prescribed Burning Background Document and Technical Information Document for Prescribed Burning Best Available Control Measures" or EPA's Smoke Management BMP.

Rationale: Smoke management is one element (both prevention of significant deterioration (PSD) and total suspended particulates (TSP)) of several elements in the National Ambient Air Quality Standards, established in the Clean Air Act (1967) and amendments to the Act (1972,1977).

Monitoring:

- Smoke management monitoring will occur under the requirements and guidelines for air quality and smoke management being developed by the State of Idaho.

1. Manage smoke from prescribed fire through techniques of avoidance, dilution and emission reduction.

FIRE 5: Modify standard suppression techniques to protect sensitive resource values.

Rationale: ACECs, WSAs and other sensitive areas contain important resource values. Some resource values could be damaged or destroyed by fire or fire suppression techniques, such as destroying an historical structure in the Silver City area or using a bulldozer to blade over the Oregon Trail. Standard suppression techniques need to be modified to protect these sensitive resource values.

[redacted]

Monitoring:
- Annual fire occurrence reports.

1. Restrict the use of heavy equipment in fireline construction in WSAs, some ACECs, riparian habitat areas, the Silver City and DeLamar Historic Districts and the Oregon Trail. See Appendices FIRE-1, FIRE-2, FIRE-3 and FIRE-4 and Table ACEC-C.

2. Use any and all available fire suppression techniques to protect the Silver City area, cultural ACECs and unique wildlife habitat areas.

Lands

LAND 1: Acquire through exchange, purchase or donation and maintain those lands which have high resource values and which provide for efficient and effective management and administration.

Rationale: Section 202 of FLPMA makes it the policy of the United States that the public lands be retained in Federal ownership. Sections 205 and 206 of FLPMA provide mechanisms for consolidating land ownership patterns through acquisitions and disposals. Consolidated ownership patterns would provide for better land management and administration for both public and non-public landowners. Retention and acquisition of lands in public ownership containing significant resource values would provide for long-term protection and management of those values. Disposal of isolated, unmanageable tracts would provide more efficient use of lands better suited in non-public ownership and concentrate management efforts in significant blocks of public lands.

Monitoring:
- Established Annual Work Plan (AWP) reporting procedures.
- Review access needs on a regular and periodic basis.
- Normal BLM accomplishment tracking process.
- Apply existing resource monitoring procedures on adjacent or comparable lands to newly acquired lands.

1. Acquire through purchase, exchange or donation lands that will benefit the management of resource programs including but not limited to wild horses, wildlife, WSA's, ACEC's, riparian, cultural, recreation, etc.

2. Manage newly acquired lands for the highest potential purpose for which they were acquired. Manage acquired lands with unique or fragile resources to protect those resources. Manage acquired lands without special values or management goals in the same manner as comparable or adjacent public lands.

[redacted]

LAND 2: Make available for disposal approximately 325,061 acres of public land by sale, exchange, or Recreation & Public Purposes Act during the life of the plan. Retain in federal ownership those lands not identified for disposal.

Rationale: FLPMA 203, 206, 212. Disposal of those lands that are difficult and uneconomic to manage or that would serve important public objectives is important for more efficient overall management of the public lands and community relations.

Monitoring:

- Normal BLM accomplishment tracking processes.

1. Consolidate public lands by land tenure adjustment to acquire lands having higher public values and disposing of lands having lower public values by the various authorities available. See Map LAND-3C.

Zone 1. Retain lands in public ownership in Zone 1. Lands in Zone 1 have been determined to have high public values including but not limited to; Wilderness Study Areas, Wild and Scenic Rivers, ACEC's for protection of botanical and archaeological values, crucial wildlife habitat and recreational values. Land in this zone will be considered for R&PP actions on a site specific basis.

Zone 2. Retain lands in public ownership in Zone 2 except for voluntary exchanges to resolve land use conflicts within this zone. Zone 2 coincides with the Snake River Birds of Prey National Conservation Area boundary. Public Law 103-64, passed by Congress and signed into law August 4, 1993, established the Snake River Birds of Prey National Conservation Area. This law withdrew all Federal lands within the conservation area from all forms of entry, appropriation, application, selection and disposal except for voluntary land exchanges which would resolve ownership related land use conflicts within the conservation area.

Zone 3. Exchange public lands within Zone 3 only with the State of Idaho to further "block" public lands in this Zone. Land in this Zone will be considered for R&PP actions on a site specific basis.

Using current existing laws and regulations, detailed analysis will be conducted on a case by case basis before decisions are made to dispose of Zone 3 lands from public ownership.

Zone 4. Make lands available for disposal in Zone 4. Lands designated for disposal that meet the criteria found at 43 CFR 2710.0-3(a)(3), and other management objectives are designated as Zone 4. These lands meet the criteria for disposal by sale, but may also be disposed of by any other authority available to BLM for transfer of title out of public ownership, except the Desert Land Act and the Carey Act. See Table LAND-1 and Map LAND-3E.

Using current existing laws and regulations, detailed analysis will be conducted on a case by case basis before decisions are made to dispose of Zone 4 lands from public ownership. Although these lands meet Section 203 criteria, it will be management's decision as to which disposal authority will ultimately be used.

Zone 5. Make lands available for disposal in Zone 5. The term "disposal", unless specifically qualified, refers to any BLM authority which transfers title out of public ownerhsip except sale, the Desert Land Act and the Carey Act.

[redacted]

2. Public lands currently under Desert Land (DLE) application that are relinquished or rejected will not be made available for further application for agricultural purposes.

LAND 3: Authorize and manage the use of public lands for rights-of-way, right-of-way reservations, easements, permits, leases, licenses, agreements, etc., except for those areas identified as exclusion areas.

Applications for use of the public lands will be evaluated on a case by case basis using current existing procedures.

Rationale: FLPMA 212, 302, 307, 501, 507, 43 CFR 2800 and 2920. Allowing for use of the public lands by providing continuity for use authorizations.

Monitoring:
- Normal BLM accomplishment tracking process.

1. Authorize future authorizations that are compatible with existing uses except within those areas that are identified as exclusion areas. Authorize use within avoidance areas only when alternates are not available or acceptable and resource impacts can be mitigated.

2. Manage certain areas as rights-of-way avoidance or exclusion areas. See Table ACEC-C, WNES-1, and Map LAND-C.

3. Prohibit the following activities on public lands:
   - New public waste disposal sites.
   - New or existing private waste disposal sites.
   - Storage or disposal of hazardous waste.

4. Process applications for rights-of-way, permits, leases, and other realty actions in a timely manner on a site-specific basis utilizing the NEPA process as well as current existing laws, regulations, and procedures.

LAND 4: Acquire and maintain legal public and/or administrative access to public land consistent with other resource values.

Rationale: Due to the generally fragmented nature of public lands in some parts of the resource area, several critical access points, crossing private lands, lack legal access. Legal access is needed in these areas to ensure continued effective administrative and public use of these lands. This need becomes more acute as public use of these lands increases, and as land owners become more aware of the value of public and private land for recreation and other purposes. Land tenure adjustment actions (exchanges or fee purchases) can be a valuable tool for access acquisitions. However, without careful review, lands actions, particularly exchanges, can result in lost access. Other tools can also be utilized, such as constructing new roads around lands where access is restricted and the cost of acquisition would exceed the cost of construction or where such acquisition is not feasible.

[redacted]

Monitoring:
- Normal BLM tracking process. Review access needs on a regular basis.

1. Acquire public or administrative access where public demand or an administrative need exists. Place emphasis on providing access to areas containing high resource values. See Map LAND-4.

2. Ensure that public access is secured or acquired through all land tenure adjustment transactions.

3. Construct new roads around private lands where easement acquisition is not feasible but significant access needs have been identified.

4. Use the right-of-way regulations to acquire reciprocal rights-of-way for administrative access across private lands when appropriate.

5. Use the Cooperative Right-of-Way Agreement between the BLM and the State of Idaho to acquire access across state lands as needed.

LAND 5: Identify and abate unauthorized use of public lands.

Rationale: FLPMA 102, 303, 43 CFR 9230. The abatement of unauthorized uses protects resource values on the public lands and prevents loss of revenue due the United States.

Monitoring:
- Monitoring will include regular surveillance of lands and resources where a high probability of unauthorized use exists, as well as follow-up on information concerning possible trespass provided by the staff and by the public.
- Normal BLM accomplishment process will be utilized to track implementation of this decision.

1. Detect, confirm and abate, either by authorization or termination, all unauthorized use on public land.

LAND 6: Withdraw certain public land for protection from degradation and protection of identified resource values.

Rationale: Section 204 of FLPMA gives the Secretary the authority to make, modify, extend or revoke withdrawals and mandates review of withdrawals. Bureau Manual 2300 provides guidance. The placement of withdrawals on designated parcels of the public lands segregates them from certain uses to prevent unnecessary and undue degradation of a resource.

Monitoring:
- Normal BLM tracking process.
- Review withdrawals on a regular basis.

1. Withdraw BLM lands shown to contain high resource values and lands that may be damaged or degraded using the existing management directives. See Table LOCM-C.

[redacted]

LAND 7: Provide management prescriptions on those lands that have been returned to BLM management through revocation of withdrawals.

Rationale: FLPMA 204. Bureau Manual 2355 and the Annual Work Plan (AWP) process provides guidance. Lands currently under the jurisdiction of other agencies or lands currently withdrawn for a specific use need a management prescription when that existing withdrawal is revoked.

Monitoring:
Normal BLM tracking process.

1. Manage lands that have been returned to BLM management through revocation of withdrawals in the same manner as adjacent lands. If returned lands have a significant resource, recreation, wildlife or cultural value, manage those lands for continued protection and enhancement of the value identified.

Locatable Minerals

LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

Rationale: The 1872 Mining Law (30 USC 22 et. seq), along with the Mining and Mineral Policy Act of 1970, declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102, reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. The National Materials and Minerals Policy, Research, and Development Act of 1980 restates the need to implement the 1970 act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making.

Monitoring:
- Regular surveillance to detect and confirm unauthorized mining activity.
- Monitor active mining operations.
- Make periodic inspections consistent with BLM policies.
- Continue the review of all pertinent literature.

1. Manage areas classified as having a high potential for locatable minerals primarily for mineral development while preventing unnecessary and undue degradation. See Map LOCM-2.

2. Allow mineral exploration and development on areas classified as having a moderate to low potential for locatable minerals subject to reasonable measures to prevent unnecessary and undue degradation.

3. Recommend withdrawal from mineral entry certain recreation areas, certain ACECs, and lands that become designated as Wild, Scenic or Recreational Rivers or Wilderness areas. See Table LOCM-C.

[redacted]

Fluid Minerals

FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

Rationale: The Mineral Leasing Act of 1920 as amended, the Geothermal Steam Act of 1970 as amended, and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal government to foster and encourage private enterprise in the development of domestic mineral resources. FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources.

Monitoring:

- Incorporate stipulations on leases as appropriate.

1. Provide maximum opportunity for leasing, exploration and development of oil & gas and geothermal resources consistent with the protection of other resource values.

2. Close certain areas to fluid mineral leasing to protect identified resource values. See Table FLUM-C.

3. Lease with no surface occupancy, seasonal occupancy and other surface occupancy stipulations certain areas to protect identified resource values. See Table FLUM-C.

Mineral Materials

MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

Rationale: The Materials Act of July 31, 1947 as amended (30 USC 601) and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nations need for domestic sources of minerals and other resources.

Monitoring:

- Geologist and other resource specialists to note unauthorized use, make periodic inspections for authorized use and maintain records in accordance with BLM manuals.

1. Provide for mineral material needs through negotiated sales, free use permits and community pits.

2. Detect, confirm, and abate unauthorized use on the public lands. Effect reclamation of lands damaged by unauthorized use.

3. Close certain areas to mineral material disposal. See Table MMAT-C.

4. Manage existing material sites for long-term use by government agencies and the general public.

[redacted]

Recreation

RECT 1: Provide for off-highway motor vehicle (OHMV) use on public lands while protecting sensitive resource values.

Rationale: Federal regulations require the BLM to designate all public lands as either open, limited, or closed to off-highway (or off-road) motor vehicle use for the purpose of meeting public demand for OHMV activities, to protect natural resources and the safety of the public, and to minimize conflicts among various user groups. Federal regulations pertaining to OHMV planning include 43 CFR 8342; Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877: February 9, 1977); Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959h; May 25, 1977).

Monitoring:

- Periodic patrols to check designation boundaries, signing, and recreational use. In the Owyhee Front SRMA, patrols will be weekly. In the rest of the ORA, patrols will be monthly.
- Establishment of baseline data and photo points to determine impacts of recreation use on soil, water quality, and vegetation resources.
- Rehabilitation of specific sites as necessary.
- Monitoring of administrative activities to ensure compliance with OHMV designations and related motorized access authority/exclusion decisions.

1. Manage OHMV recreational use on public lands in accordance with the following designations: See Map RECT-1C.

Open: Off-highway motorized vehicle use is allowed on all public lands without special restrictions, except as otherwise posted: 0 acres.

Limited - Level 1: Off-highway motorized vehicle use is limited to existing roads, jeep trails, motorcycle/ATV trails, and sand washes year-round, except as otherwise posted: 101,639 acres.

Limited - Level 2: Off-highway motorized vehicle use is limited to existing roads and to jeep, motorcycle and ATV trails year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units.): 0 acres.

Limited - Level 3: Off-highway motorized vehicle use is limited to existing roads and jeep trails, and to designated motorcycle and ATV trails year-round, except as otherwise posted: 0 acres. 0 acres.

Limited - Level 4: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; Snowmobiles restricted to designated areas in winter months: 314,080 acres.

Limited - Level 4-IMP: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; if lands are released from wilderness consideration, lands are then managed as "Open": 0 acres.

[redacted]

Limited - Level 5: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round, except as otherwise posted; with management option to close select lands to OHMV use from November 1 to May 31, except for designated routes; Snowmobiles restricted to designated areas in winter months: 432,774 acres.

Limited - Level 6: Off-highway motorized vehicle use is limited to designated roads and trails year-round; Snowmobiles restricted to designated trails in winter months: 227,068 acres.

Limited - Level 7: Off-highway motorized vehicle use is limited to designated roads and trails (jeep, ATV and/or motorcycle) year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units). 0 acres.

Closed: All lands are closed to off-highway motorized vehicle use year-round: 244,430 acres.

RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for recreation use of public lands as an integral part of multiple-use management. Dispersed, unstructured activities typify the recreational uses occurring on most public lands. Federal regulations (43 CFR 8300) authorize the BLM to designate administrative units known as special recreation management areas (SRMAs) where there is a need to commit to a higher level of financial investment in recreational facilities and a higher level of managerial presence than is typical of most BLM lands. A SRMA designation signifies a long-term commitment to manage the physical, social, and managerial settings of an area to sustain specific activities and experience opportunities. The delineations are based upon administrative/managerial criteria that reflect congressional designations (such as national wild, scenic or recreational rivers), similar or interdependent recreation values, homogenous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, and public concern.

Monitoring:

- Specific monitoring needs are to be determined during the preparation of SRMA activity plans. These needs will generally include:
  a. Periodic patrols (several times yearly) to check boundaries, signing, and recreational use.
  b. Establishment of baseline data and photo points to determine current impacts from recreational use.
  c. Rehabilitation of specific sites as necessary, including the upgrading and development of recreation facilities.
  d. Development of "Limits of Acceptable Change" studies, where suitable, to help determine appropriate levels and patterns of recreational use, and the influences of other resource uses.

[redacted]

1. Retain or modify (reduce) the boundaries of nine existing SRMA designations totaling 302,890 acres. See Map RECT-2C. Manage the SRMAs for identified recreational opportunities and experiences.
   - Blackstock: 6,149 acres: Semi-primitive motorized and roaded natural
   - Jump Creek: 465 acres (reduced size): Roaded natural and semi-primitive nonmotorized
   - North Fork Owyhee Backcountry: 56,593 acres: Primitive and semi-primitive motorized
   - North Fork Canyon: 475 acres: Primitive and roaded natural
   - Owyhee Front: 181,590 acres: Semi-primitive motorized and roaded natural
   - Owyhee Canyonlands: 36,839 acres: Primitive and semi-primitive motorized (additional 5,627 acres in the Bruneau Resource Area). Manage in accordance with Owyhee River Recreation Area Management Plan (USDI-BLM, April 1983), or as amended.
   - Deep Creek: 5,884 acres: Primitive and roaded natural (additional 5,918 acres in the Bruneau Resource Area)
   - Oregon National Historic Trail: 7,305 acres: Semi-primitive motorized and roaded natural
   - Snake River Birds of Prey: 7,590 acres: Semi-primitive motorized and roaded natural

2. Designate and establish boundaries for an additional 46,404 acres of SRMA lands which are to be incorporated into existing SRMAs. See Map RECT-2C. Manage the SRMAs for identified recreational opportunities and experiences.
   - North Fork Addition (North Fork Owyhee Backcountry)*: 208 acres: Primitive and semi-primitive motorized
   - Current Creek Addition (Deep Creek)*: 567 acres: Roaded natural
   - Guffey Butte Addition (SRBOP): 2,635 acres: Semi-primitive motorized and roaded natural
   - Fossil Creek Addition (Owyhee Front): 23,524 acres: Semi-primitive motorized and roaded natural
   - Squaw Creek Addition (Owyhee Front): 19,470 acres: Semi-primitive motorized and roaded natural

* These two additions to existing SRMAs are in response to wild and scenic river suitability recommendations for the upper North Fork Owyhee River and Current Creek. Should these river segments not be designated by Congress, these SRMA additions will be dropped and included in the ERMA.

3. Designate 970,697 acres as an extensive recreation management area (ERMA) and manage primarily for semi-primitive motorized and roaded natural opportunities and experiences. The ERMA will include what was the Silver City SRMA (2,166 acres) and much of the Jump Creek SRMA (7,740 acres).

RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Rationale: The National Wild and Scenic Rivers Act (P.L. 90-542), Section 5(d), requires the Secretary of the Interior to identify "river" segments which are eligible to receive consideration as potential wild, scenic, and recreational river areas. Section 5(d) further directs the Secretary to determine which eligible river segments should be evaluated in the BLM planning process "... as alternatives to the developments being planned." This evaluation is referred to as the suitability determination. The procedures by which the BLM determines eligibility and suitability are described in 43 CFR 8351 (Designated National Areas) and the USDI-USDA Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

[redacted]

Monitoring:

- Periodic (several times per year) patrols to check boundaries and affected river corridor lands, signing, and recreational use.
- Establishment of baseline data and photo plots to determine current impacts from recreation use.
- Rehabilitation of specific sites as necessary, including the construction of small recreation sites at launch sites and take-outs, and the construction of portage trails around unrunnable or dangerous rapids.
- Undertake "Limits of Acceptable Change" studies on affected river corridors to determine the appropriate level and pattern of recreation use, and the influences of other resource uses.

1. Recommend to the Secretary of the Interior that 163.0 miles of eligible rivers and streams are suitable for national wild, scenic, or recreational river designation. See Map WSR-C.
    - South Fork Owyhee River: Wild: 26.5 miles
    - South Fork Owyhee River: Recreational: 1.5 miles
    - East Fork Owyhee River: Wild: 66.0 miles
    - Deep Creek: Wild: 32.0 miles
    - Nickel Creek: Wild: 8.0 miles
    - Current Creek: Wild: 7.5 miles
    - Current Creek: Scenic: 1.5 miles
    - Lower North Fork Owyhee River: Scenic: 4.0 miles
    - Upper North Fork Owyhee River: Wild: 16.0 miles

2. Provide for interim protection of wild, scenic, and recreational river values while awaiting a determination by Congress. See Appendix RECT-1 for management standards for the three river classifications.

RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Rationale: The BLM is committed to maintaining recreation facilities to a standard that protects the resource, the public and the public investment, and fosters pride of public ownership, and to developing appropriate recreation facilities, balancing public demand, protection of public land resources, and fiscal responsibility. BLM planning guidance requires the BLM to coordinate with other federal and state plans such as the Idaho Statewide Comprehensive Outdoor Recreation Plan (SCORP) from the Idaho Department of Parks and Recreation and the River Basin Plans of the Idaho Department of Water Resources, and include applicable data and findings in BLM planning documents. Data taken from the Idaho SCORP indicates that overall recreation use in the ORA in 2015 will be 70% above 1995 use levels; placing increased demand on existing recreation facilities and warranting consideration of new sites and facilities.

Monitoring:

- Periodic (bi-weekly, weekly or monthly) patrols by maintenance staff to check facilities and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

[redacted]

1. Maintain existing recreational facilities at four (4) recreation sites (See Map RECT-2C):
    - Hemingway Butte OHV Trailhead.
    - Rabbit Creek OHV Trailhead.
    - Fossil Creek OHV Trailhead.
    - North Fork Campground.

2. Upgrade, reconstruct and/or increase recreation facilities at seven (7) recreation sites (See Map RECT-C):
    - Jump Creek Recreation Site.
    - Little Squaw Creek Recreation Site.
    - Silver City Campground.
    - Ruby Junction Recreation Site.
    - Trout Springs Hunter Camp.
    - Castlehead Springs Hunter Camp.
    - Garat Crossing Launch Site.

3. Construct at least seven additional recreation sites:
    - Guffey Butte Addition - response to additional needs identified by Canyon and Owyhee Counties.
    - Owyhee Front equestrian trailheads - two sites.
    - Owyhee Uplands National Back Country Byway campgrounds - not to exceed two sites.
    - North Fork Owyhee Backcountry trailheads - two sites.
    - Other sites as may be appropriate.

4. Maintain undeveloped recreation sites throughout the Owyhee Resource Area to protect public health and safety.

RECT 5: Develop a trail system that provides a range of motorized and non-motorized recreation opportunities for the public's enjoyment of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural settings.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for the recreational use of public lands as an integral part of multiple-use management. In accordance with this law, the BLM is committed to providing and maintaining a wide diversity of recreation opportunities on public lands, including opportunities to utilize developed trail systems. Idaho's SCORP identifies the role of federal agencies to develop dispersed facilities such as trails to meet existing and projected demand. There is increasing demand by user groups and local government entities to expand the trail system to accommodate a variety of trail opportunities.

Monitoring:

- Periodic patrols by maintenance staff to check trail facilities and recreational use. Patrols will be weekly, monthly or several times a year depending on trail location.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.
- Periodic (monthly) patrols of the road corridor to check signing and vehicle use, as well as roadway safety.

[redacted]

1. Establish planning corridors for the consideration of foot/equestrian trail systems to further public opportunities to safely enjoy recreational settings in the following areas:
   - North Fork Canyon SRMA - foot travel only; utilize necessary bridges to allow for repeated crossing of the river channel during high flow periods.
   - North Fork Owyhee Backcountry SRMA - foot/equestrian travel; utilize necessary bridges to allow for crossing of the river channel at isolated locations during high flow periods. See Map RECT-4.
   - Owyhee Canyonlands SRMA - portage trails around Owyhee Falls and Thread the Needle Rapid on the East Fork Owyhee River.
   - Snake River Birds of Prey SRMA (Guffey Butte Addition) - foot/equestrian trail around Guffey Butte in conjunction with the Canyon County Celebration Park site. See Map RECT-5.
   - Jump Creek SRMA - trails leading away from the Jump Creek Recreation Site into and above the canyon as resource damage warrants.
   - Owyhee Front SRMA - trails leading away from the equestrian trailheads on lands not affected by wild horse herd management areas.

2. Develop a mountain bike trail program utilizing existing dirt roads and trails within the ORA.

3. Dedicate and protect the Owyhee Uplands National Back Country Byway's existing roaded natural opportunities. Provide for the upgrading of the Byway to ensure public safety and to enhance recreational opportunities associated with the corridor's roaded natural setting.

4. Modify existing motorized vehicle opportunities consistent with OHMV designations and subject to congressional wilderness designations.

5. Manage the Oregon National Historic Trail in accordance with the Oregon Trail Comprehensive Management and Use Plan (USDI-NPS, August 1981) and Oregon Trail Management Plan (USDI-BLM, 1984), or as may be amended.

RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Rationale: BLM is committed to enhancing recreational opportunities through land ownership adjustments, increased and improved access, and other acquisitions.

Monitoring:
- Monitoring of recreational use on affected non-federal properties.
- Monitoring for easement compliance.
- Periodic (bi-weekly) patrols by maintenance staff to check road conditions and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Pursue recreational easements that allow for motorized access.

[redacted]

2. Pursue the purchase (fee title) of properties which would enhance recreation opportunities.

3. Upgrade access roads from dirt to gravel into the North Fork Owyhee Backcountry SRMA trailhead locations.

RECT 7: Retain at least 10% of the ORA in a primitive recreational opportunity (ROS) setting.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102 (8), declares as policy that "...the public lands be managed in a manner that will protect the quality of the scenic resources...that, where appropriate, will preserve and protect certain public lands in their natural condition." At present, only 13% of the ORA retains a primitive setting (Resource Opportunity Spectrum classification).

Monitoring:
- Periodic updating of recreation opportunity spectrum (ROS) inventory.
- Application of ROS consideration through NEPA review.

1. Prohibit the construction of new rangeland (livestock, watershed, and wildlife) facilities within the primitive settings of the SRMA lands associated with the Owyhee River system. See Map RECT-1. The affected SRMAs are:
    - North Fork Canyon SRMA.
    - North Fork Owyhee Backcountry SRMA.
    - Owyhee Canyonlands SRMA.
    - Deep Creek SRMA.

[redacted]

Wilderness

WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Rationale: Section 603 of the Federal Land Policy and Management Act (FLPMA) requires that all public lands be inventoried for the presence of wilderness characteristics. Those found to have wilderness characteristics are identified as wilderness study areas (WSAs) and are to be managed for the protection of wilderness values until such time that Congress can act on wilderness suitability recommendations prepared for each WSA. The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992 for submission to the President and Congress. The wilderness study areas in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	50,865
ID-16-41	Big Willow Spring	6,210
ID-16-42	Squaw Creek Canyon	10,780
ID-111(16)-44	Upper Deep Creek	530
ID-16-45	Middle Fork Owyhee River	14,820
ID-16-47	West Fork Red Canyon	12,970
ID-16-48A (OR-3-194)	Lookout Butte	34,400
ID-16-48B (OR-3-195)	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	24,790
ID-16-49A	Owyhee River-Deep Creek	52,090
ID-16-49D	Yatahoney Creek	4,745
ID-16-52	Juniper Creek	5,855
ID-16-53 (NV-010-103A)	South Fork Owyhee River	44,955
Total		298,630

See Map WNES-1 and Table WNES-1 for additional information.

Monitoring:

- Implement generic monitoring standards as specified in the Boise District IMP Plan and the Owyhee IMP Implementation Plan.

1. Ensure that WSA lands and Section 202 study lands remain substantially natural in character, retain outstanding opportunities for solitude and/or primitive recreation experiences, and support supplemental wilderness values.

[redacted]

WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Rationale: The Federal Land Policy and Management Act recognizes wilderness as an integral part of the spectrum of multiple uses of public lands. Lands designated as wilderness are to be managed into perpetuity for the protection of wilderness and other multiple-use values in accordance with the Wilderness Act of 1964 and the BLM's Wilderness Management Policy (September 24, 1981). The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992. The President submitted these wilderness recommendations to Congress in September of 1992. The recommendations for wilderness in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	41,025
ID-16-48B	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	16,330
ID-16-49A	Owyhee River - Deep Creek	47,840
ID-16-49D	Yatahoney Creek	4,425
ID-16-52	Juniper Creek	5,785
ID-16-53	South Fork Owyhee River	44,955
Total		195,980

See Map WNES-1 and Table WNES-2 for additional information.

Monitoring:
- Monitoring needs are to be determined by specific wilderness management plans.

1. Manage designated wilderness so that natural ecological, geological, hydrological, biological and edaphic processes will operate freely.

[redacted]

Visual Resources

VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102(8), declares as policy that public lands will be managed to "... protect the quality of the scenic values... that, where appropriate, will preserve and protect certain public lands in their natural condition." The National Environmental Policy Act (NEPA; P.L. 9-190), Section 101(b), requires federal agencies to "... assure for all Americans... esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "...utilize a systematic, interdisciplinary approach which will ensure the integrated use of ... Environmental Design Acts in the planning and decision making..." process. Guidelines for the identification of VRM classes on public lands is contained in BLM Manual Handbook 8410-1, Visual Resource Inventory. The establishment of VRM areas is based upon an evaluation of the landscapes' scenic qualities, public sensitivity toward certain areas (such as special recreation designations or wilderness), and the location of affected lands from major travel corridors (distance zoning).

Monitoring:

- In VRM Class I and Class II areas, on-site visual quality control inspections will occur at the time of project construction, reconstruction, and maintenance.
- In VRM Class III and IV areas, ongoing quality control inspections of ORA project work in general will be done, however, attendance at specific project sites during construction, reconstruction, and maintenance will not be required.

1. Classify and manage public lands under the following VRM classifications:

Class I areas:	1,332 acres
Class II areas:	242,150 acres
Class II-IMP areas:	123,496 acres
Class III areas:	144,785 acres
Class IV areas:	738,228 acres

See Map VISL-C.
See Appendix VISL-1 for classification objectives.

[redacted]

Cultural Resources

CULT 1: Protect known cultural resource values from loss until their significance is determined.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Cultural resource sites are deteriorating from the effects of vandalism and neglect.

Monitoring:
- Monitor three cultural resource sites per year to determine site condition and mitigation needs.

1. Mitigate the negative impacts to cultural resource sites known to be suffering the effects of agents of deterioration.

2. Develop management strategies to ensure preservation of cultural resource values within specific areas known to contain concentrations of unique or significant cultural resource sites.

CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

Rationale: The National Historic Preservation Act of 1966 provides for the protection of cultural resource values on land managed by federal agencies and identifies federal agency responsibilities to preserve prehistoric and historic cultural resources.

Monitoring:
- According to schedule outlined in the Oregon Trail Management Plan and the Birds of Prey Cultural Resource Management Plan.
- Make three site visits per year to ensure Silver City homeowner compliance with Owyhee County Historic Preservation Committee recommendations.

1. Protect the integrity of those portions of the eighty mile Oregon Trail and associated cultural resource sites on public land. See Map CULT-1.

2. Manage the existing Silver City, DeLamar and Guffey Butte/Black Butte Historic Districts in accordance with Section 110 of the National Historic Preservation Act of 1966. See Map CULT-1.

3. Manage the existing Guffey Butte/Black Butte Archaeological District ACEC to protect cultural resource values. See Table ACEC-C.

4. Designate Lambert Table, Rooster Comb Peak and Sinker Creek as ACECs and manage to protect cultural values. See Table ACEC-C.

5. Nominate sites/areas that qualify to the National Register of Historic Places and prepare Cultural Resource Management Plans for those sites.

[redacted]

CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Public participation in the preservation process is essential to prevent continued loss of cultural values.

Monitoring:
- Normal BLM accomplishment tracking process.

1. Participate in cooperation with State and other Federal agencies and private entities to conduct public outreach programs including "Archaeology Week" and other cultural resource related events.

Hazardous Materials

HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. Minimize the human health threat and the risk to natural resources from hazardous materials contamination.

Rationale: The Secretary's waste management initiative commits the Bureau to reducing hazardous material situations on public lands. Federal agencies are required to comply with all federal and state laws, regulations and policies regarding hazardous materials on public lands. These include:
- Resource Conservation and Recovery Act (RCRA), As Amended 1976/1980 - 42 USC 6901f.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980 - 42 USC 9601f.
- Federal Water Pollution Control Act (Clean Water Act) 1987 - 33 USC 1251-1387.
- Clean Air Act, As Amended 1977/1990 - 42 USC 7418.
- Federal Land Policy and Management Act, As Amended 1976 - 43 USC 1701f.

Monitoring:
- Periodic review of NEPA documents. Field review of compliance.
- Yearly assessment of reported sites.
- Follow-up monitoring to be developed on a case-by-case basis.

1. Ensure that hazardous material and potential hazardous material problems associated with BLM authorized land use actions are identified.

2. Increase law enforcement actions to reduce the amount of illegal disposal of hazardous wastes on public lands.

3. Implement remediation/removal actions for hazardous waste sites in a timely and efficient manner.

[redacted]

Area of Critical Environmental Concern (ACEC)

ACEC 1: Retain existing and designate new Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and where special management is needed to protect the values identified.

Rationale: Section 202 (c)(3) of FLPMA mandates that priority be given to the designation and protection of areas of critical environmental concern. Further guidance and evaluation criteria are found at 43 CFR Part 1610.7-2.

Monitoring:

- Relevant and important values of each designated ACEC would be monitored on a regular schedule to evaluate the effectiveness of management in maintaining those values.

1. Designate the following as Areas of Critical Environmental Concern (ACECs): See Map ACEC-C.
    - Guffey Butte/Black Butte Archaeological District(7,750 acres)
    - Owyhee River Bighorn Sheep Habitat Area (141,796 acres)
    - Boulder Creek Outstanding Natural Area (4,557 acres)
    - Cinnabar Mountain Research Natural Area (277 acres)
    - Coal Mine Basin Research Natural Area (1,604 acres)
    - Hells Creek Research Natural Area (260 acres)
    - Jump Creek Canyon (612 acres)
    - Juniper Mountain (64,298 acres)
    - Lambert Table (18,036 acres)
    - McBride Creek Research Natural Area (261 acres)
    - North Fork Juniper Woodland Outstanding Natural Area (4,204 acres)
    - Pleasant Valley Table Research Natural Area (1,467 acres)
    - Rooster Comb Peak (8,172 acres)
    - Sinker Creek 2,128 acres)
    - Squaw Creek Research Natural Area (150 acres)
    - The Badlands Research Natural Area (1,097 acres)
    - The Tules Research Natural Area (114 acres)

The total acreage of the seventeen designated areas is 235,290 acres.

2. Manage designated ACECs with the special management actions identified in Table ACEC-C.

[redacted]

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[redacted]

ALTERNATIVE D

Air Resources

AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

Rationale: The Federal Clean Air Act and State of Idaho regulations require Federal agencies to meet or exceed air quality standards.

Monitoring:
- Review of prescribed burn plan, pre-burn and post-burn calculations of acreage and tonnage on site.
- Annual Work Plan (AWP) identification.
- Maintain accurate records of both acreage and tonnage burned to date.
- Periodic review of NEPA documentation.
- Field review of compliance with mitigating measures.

1. Limit prescribed burning in juniper/sagebrush/grassland areas so prescribed burns, in addition to known natural fires, do not exceed 9,000 acres (or equivalent of 60,000 tons of fuel) per year. Limit individual prescribed burns to 3,000 acres with a 72 hour interval before any new burn actions. Prescribed burning will focus on improving highly degraded areas for the purpose of improving these lands primarily for wildlife and native vegetation values.

2. Limit emissions from existing and new point and nonpoint sources by requiring/implementing Best Management Practices (BMPs).

3. Manage to ensure that National Ambient Air Quality Standards and Prevention of Significant Deterioration regulations are being met or exceeded.

4. Manage WSA lands and Section 202 study lands as Class I designated geographical areas with respect to meeting or exceeding Prevention of Significant Deterioration regulations so these areas will remain substantially natural in character, retain outstanding opportunities for solitude and/or primitive recreation experiences, and support supplemental wilderness values.

Soil Resources

SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:
- Monitoring includes rangeland health assessments, collection of utilization, trend, climate, and ecological site inventory data by various methods. See Appendix MONT-1 for details concerning some of these procedures.
- Area specific monitoring may be conducted using various methods (e.g., 3-F erosion bridge).

1. Manage native perennial range to maintain or increase the level of aerial cover and species diversity that is representative of a late seral stage; in part through adjustments in livestock grazing and OHMV use as described in the Livestock Grazing Management and Recreation sections.

2. In the absence of an approved and implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing by July 15th, or earlier if necessary, in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian/wetland areas and regardless of the monitoring status of the pasture. See Appendix LVST-1 and Table RIPN-1 and RIPN-2 for affected allotments and Table LVST-D for livestock grazing systems.

3. A minimum stubble height of 6 inches will be present on all riparian areas at the end of the growing season.

4. Manage native perennial range to limit soil loss to a sustainable rate as identified through the use of appropriate predictive technologies.

5. Develop goals for interim progress of reductions of accelerated soil loss. Review on five-year intervals over a period of 20 years. If progress is incompatible with reaching the reductions of accelerated soil loss goals in the allotted time, implement more aggressive adjustments in the causes of accelerated soil loss (i.e., livestock grazing and OHMVs) to meet the interim goals. Publish the evaluation and any revised plans to the public.

[redacted]

SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:

- Regular inspections of mineral related activities to assure compliance with plan of operation and permit stipulations.
- Monitoring of streambanks as part of riparian habitat assessments.
- Monitoring of site specific OHMV activities for soil/sediment impacts.
- Periodic inspection of other surface disturbing activities to assure compliance with BMPs.

1. Minimize soil erosion caused by surface disturbing activities through proper timing with regard to soil moisture content and range readiness. Eliminate consideration of range projects for areas sensitive to soil compaction when range projects would result in livestock congregation (water developments, salting areas, gates, etc.). Adjust stocking levels and/or season-of-use in allotments or pastures sensitive to soil compaction to better protect the soil resource.

2. Prevent new and control existing surface disturbing activities on soils with high or very high erosion hazard rating by restricting or eliminating OHMV use, livestock grazing use, road building, juniper harvest, and eliminating mechanical range treatments and prescribed fire.

3. In the absence of an approved and implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing by July 15th, or earlier if necessary, in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian/wetland areas and regardless of the monitoring status of the pasture. See Appendix LVST-1 and Table RIPN-1 and RIPN-2 for affected allotments and Table LVST-D for livestock grazing systems.

4. Immediately eliminate livestock grazing from riparian areas displaying moderate to severe bank stabilization problems. Allow reintroduction of livestock grazing only after monitoring has determined stabilization has been achieved. Review livestock stocking levels and/or season-of-use before reintroduction to ensure future streambank stability.

5. Implement streambank stabilization projects in all areas with high to very high erosion hazard ratings.

6. Eliminate or drastically reduce livestock grazing on areas exhibiting unique soil erosion problems.

7. Improve watershed hydrologic function by implementing riparian management, protection and restoration efforts so at least 75% of riparian areas are in proper functioning ecological condition within 8 years of initiating the RMP. Obtain 90% in proper functioning ecological condition within 20 years.

[redacted]

8. Rehabilitate gullies on upland areas.

9. Livestock grazing management practices (e.g., Best Management Practices (BMPs)) will be implemented through terms and conditions of permits and leases so that streambank damage by livestock will be limited to less than 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). If this limit is not sufficient to maintain stable streambanks throughout the length of the stream, reduce the percentage of allowable streambank damage to provide for long-term, stable streambanks.

10. A minimum stubble height of 6 inches will be present on all riparian areas at the end of the growing season.

11. Livestock grazing management practices (e.g., Best Management Practices (BMPs)) will be implemented through terms and conditions of permits and leases so that sufficient vegetation biomass and plant residue (including woody debris) remain to provide for adequate sediment filtering and dissipation of stream energy for bank protection.

12. Livestock grazing management structures within the normal high water line causing deterioration of aquatic areas (e.g., dams, diversions, road crossings, etc.) will be removed or modified so deterioration is eliminated.

Water Resources

WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

Rationale: Federal government agencies are required to comply with all Federal, State, interstate and local requirements, administrative authority, and process and sanctions in respect to the control and abatement of water pollution. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Adjust livestock grazing and OHMV use as described in the Livestock Grazing and Recreation sections for Alternative D.

2. Prevent new and control existing surface disturbing activities on soils with high or very high erosion hazard rating by restricting or eliminating OHMV use, livestock grazing use, road building, juniper harvest, and eliminating mechanical range treatments and prescribed fire.

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3. After all fires, eliminate livestock grazing and OHMV use for a minimum of three calendar years and then evaluate suitability for reintroduction.

4. Improve watershed hydrologic function by implementing riparian management, protection and restoration efforts so at least 75% of riparian areas are in proper functioning ecological condition within 8 years of initiating the RMP. Obtain 90% in proper functioning ecological condition within 20 years.

5. A minimum stubble height of 6 inches will be present on all riparian areas at the end of the growing season.

6. Provide appropriate toilet/sanitary facilities at appropriate designated recreation sites to minimize adverse impacts on water quality.

7. Livestock grazing management practices (e.g., Best Management Practices (BMPs)) will be implemented through terms and conditions of permits and leases, that maintain or restore water quality needed to protect and enhance beneficial uses and that meet or exceed State of Idaho water quality standards for the protection of and propagation of fish, shellfish, and wildlife; and provide for recreation in and on the water.

8. Developed springs, seeps, and perennial streams or other projects affecting water quality will be modified to protect water quality and enhance ecological values of those sites.

WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

Rationale: The BLM is committed to acquiring state water rights to guarantee future water availability for all public land activities and protest all water right applications by private individuals which may interfere with Bureau water rights.

Monitoring:
- Annual review of new project files and minimum instream flows recommended.

1. Obtain water rights for all water sources on BLM lands.

2. Protest all water right applications by private individuals which concern water rights on Bureau lands or adversely affect Bureau water rights and BLM's mission.

3. Recommend to the State of Idaho establishment of minimum instream flows on perennial streams managed by the BLM within seven years.

4. File in the name of the United States, and retain in public ownership, all water rights associated with water development on lands administered by or owned by the BLM within the Owyhee Resource Area.

[redacted]

Vegetation

VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods. See Appendix MONT-1 for details concerning procedures.

1. Adjust livestock grazing and OHMV use as described in the Livestock Grazing and Recreation sections.

2. Emphasize the establishment and maintenance of healthy native plant communities which are biologically diverse and vigorous.

3. Evaluate and mitigate potential significant adverse impacts of land exchanges, surface disturbing activities, OHMV use, livestock grazing use, juniper harvest, prescribed fire, road building and vegetation treatment on vegetative diversity.

4. Rely upon natural regeneration, seedings, and planting of native plants; eliminate use or introduction of nonnative vegetation.

5. Reduce fire suppression efforts to reintroduce the natural role of fire in ecosystem processes.

6. Rely upon biological and manual controls, and increased propagation of native plant species, as found in late seral and potential natural community stage, to displace noxious weeds. Chemical control may be used only when less intensive management practices have not produced the desired results, where target species are well defined, and where there is no risk to nontarget animal and plant species. Mechanical controls, such as chaining and discing, may not be used.

7. Prohibit mechanical treatment of vegetation.

Riparian-Wetland Areas

RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs the BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and/or conserved to minimize the need for listing as Threatened or Endangered. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters. Water quality is directly related to the health of riparian ecosystems.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Adjust livestock grazing and OHMV use as described in the Livestock Grazing and Recreation sections.

2. Manage riparian/wetland areas following the goals, objectives, and strategies contained in BLM Riparian -Wetland Initiative for the 1990's.

3. Prevent new and control existing surface disturbing activities on soils with high or very high erosion hazard rating by restricting or eliminating OHMV use, livestock grazing use, road building, juniper harvest, and eliminating mechanical range treatments and prescribed fire.

4. After fires, eliminate livestock grazing and OHMV use for a minimum of three calendar years and then evaluate suitability for reintroduction.

5. Improve watershed hydrologic function by implementing riparian management, protection and restoration efforts so at least 75% of riparian areas are in proper functioning ecological condition within 8 years of initiating the RMP. Obtain 90% in proper functioning ecological condition within 20 years.

6. In the absence of an approved and implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing by July 15th, or earlier if necessary, in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian/wetland areas and regardless of the monitoring status of the pasture. See Appendix LVST-1 and Table RIPN-1 and RIPN-2 for affected allotments and Table LVST-D for livestock grazing systems.

7. A minimum stubble height of 6 inches will be present on all riparian areas at the end of the growing season.

[redacted]

8. Improve or restore both herbaceous and woody species where present or potential exists to a healthy and vigorous condition and facilitate the ability of vegetation to reproduce and maintain different age classes in the riparian, wetland and aquatic plant communities.

9. Dispose of riparian/wetland habitat only following an evaluation by a biologist and a property of greater habitat value and of similar type can be obtained in the public interest.

10. Acquire important riparian/wetland habitat through land purchase, exchanges, and/or other authorities.

11. If necessary to meet resource objectives, appropriate actions will be taken which may include the relocation or removal of livestock management facilities from riparian or wetland areas.

12. Livestock grazing management structures within the normal high water line causing deterioration of aquatic areas (e.g., dams, diversions, road crossings) will be removed or modified so deterioration is eliminated.

Forest Management

FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Rationale: The Federal Land Policy Management Act 1976 - Section 102(a)(8) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Douglas-fir communities are present on less than 3% of the public lands in the Owyhee Resource Area. Their retention is critical to overall ecological balance, particularly in light of harvesting activities on intermingled State and private lands.

Monitoring:

- Monitoring includes examination for tree pests such as the Douglas-fir tussock moth and site inspections to insure no unauthorized tree removals occur.

1. Classify all Douglas-fir forest lands (about 36,200 acres) as being unavailable for the management of forest products. Forest stands will be retained for biodiversity. No trees will be cut for any reason.

FORS 2: Use juniper harvesting to help achieve a desired plant community.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Juniper harvesting is one of several methods available to control seral juniper encroachment into sagebrush-grassland ecological sites and manage the ecological balance of natural plant communities.

[redacted]

Monitoring:

- Monitoring includes site inspections to insure compliance with the standard woodcutting stipulations such as stumpage height, layout perimeter, slash dispersal and cutting of unauthorized vegetation such as aspen or mountain mahogany.
- Monitoring also includes collection of data concerning the impacts of the woodcut on the understory vegetation. See Appendix MONT-1 for details concerning procedures for vegetation monitoring.

1. Develop and implement an amended Owyhee Juniper Woodland Harvest Management Plan within two years to comply with the ORA Resource Management Plan. Where there is a conflict between the plans, interim management will be directed to protect the resource values identified in the Owyhee Resource Area Management Plan.

2. Manage the western juniper woodlands in accordance with an amended Owyhee Juniper Woodland Harvest Management Plan. Immediately add backcountry and primitive roadless SRMAs, canyons of all eligible Wild and Scenic Rivers, and all current and future designated ACECs to the restricted western juniper woodland cutting zone. See Table VEGE-4 and Map FORS-1.

3. Immediately provide a one-quarter mile "No Cutting Zone" around all WSAs and future designated wilderness lands.

4. Identify and protect old-growth juniper from deliberate destruction (such as from cutting or prescribed burns).

Wildlife Habitat

WDLF 1: Maintain or enhance the condition, abundance structural stage and distribution of plant communities and special habitat features required to support a high diversity and desired populations of wildlife.

Rationale: Section 102.8 of the Federal Land Policy and Management Act states that it is policy of the United States that public lands be managed in a manner that will protect the quality of multiple resources and will provide food and habitat for fish and wildlife and domestic animals. The Public Rangelands Improvement Act (PRIA) directs improvement of rangeland conditions and provides for rangeland improvements including providing habitat for wildlife. The Memorandum of Understanding between the BLM and IDF&G states that the two agencies will work for the common purpose of maintaining, improving and managing wildlife resources on public lands.

Monitoring:

- Monitoring includes collection of utilization, trend, climate, rangeland health assessment, and other data to assess vegetation characteristics as they apply to wildlife species and wildlife habitat objectives.
- Additional monitoring includes use of appropriate techniques such as pellet group counts or breeding bird transects, lek counts, etc. which are applicable to specific types of wildlife. See Appendix MONT-1 for details concerning procedures for various methods.

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- Periodically inspect/monitor authorized BLM activities including, but not limited to, range improvement projects, ROWs, OHMV use areas and woodcuts to insure compliance with wildlife stipulations and document observed habitat and animal disturbance. Refer to Table WDLF-1 for a list and estimated acreages of plant communities and special habitats and Table WDLF-2 for estimated acreages and key habitats of major game species.

1. Incorporate and apply the goals, objectives, and implementation strategies for wildlife habitat contained in Fish and Wildlife 2000, Idaho Fish & Wildlife 2000, and Upland Game Bird Habitat Management - on the Rise, and Riparian-Wetland Initiative for the 1990's within all activity plans. Provide special management attention to wetlands used by a diversity of wildlife.

2. Adjust overall livestock grazing management practices to maintain (good/excellent) and improve (poor/satisfactory) habitat for wildlife. Limit livestock use of key forage species to 20% annual forage production or less within crucial habitat for all big game. See Map WDLF-1.

3. Limit habitat deterioration and disturbance to wildlife by limiting OHMV use. See Maps WDLF-1, WDLF-2, WDLF-3 and RECT-1D.

4. Current and future identified wetland/riparian and crucial habitat for wildlife species will receive a high priority in all multiple use decisions.

5. Crucial migration corridors between winter and summer ranges for wildlife will receive high priority for protection and improvement.

6. Minimize barriers to big game movement by modifying existing fences to meet Boise District Fence Policy standards. Future fences must meet or exceed Boise District Fence Policy standards.

7. Rely on the role of naturally occurring fires for managing ecosystem processes to maintain (good/excellent) or improve (poor/satisfactory) wildlife habitat on the ORA. Reseed with a variety of native shrubs, forbs and grasses palatable to native wildlife and eliminate livestock grazing on all burns and seedings for a minimum of three calendar years following treatment.

8. Ensure water availability for wildlife by improving existing water developments and watering troughs to provide safe utilization by wildlife to reduce/eliminate wildlife loss; require water to remain on and available to wildlife after the livestock grazing season; and construct new watering facilities solely for wildlife where water is a limiting factor.

9. Retain all lands providing high quality and/or important wildlife habitat in public ownership. Acquire additional habitat that will enhance the ecosystems in the ORA. Retain isolated tracts and perimeter lands adjacent to agricultural and urban areas that provide crucial habitat for pheasant and gray partridge and nongame, all public lands within two miles of active or historical leks, and all public lands containing wetland/riparian habitat unless exchanging for habitat of equal or greater resource values.

10. Limit adverse impacts of locatable and fluid mineral exploration and development and mineral materials sales on big game and big game habitat through inclusion of stipulations on mining notices, Plans of Operation and material leases. See Tables LOCM-D, FLUM-D and MMAT-D.

[redacted]

11. Protect and enhance habitat for upland game and other wildlife at developed springs and selected meadows, reservoirs and stream riparian habitats by fencing to exclude livestock.

12. Implement management practices to maintain native vegetation at a minimum native grass height of 9 inches for effective Sage Grouse habitat in select areas. See Map WDLF-4.

13. Manage naturally occurring fires within sage grouse nesting and wintering habitat to balance desirable sage grouse habitat improvement with fire suppression standards of the Boise District FMP.

14. Develop cooperative agricultural agreements designed to enhance habitat for upland game and other wildlife.

15. Enhance waterfowl nesting habitat by ensuring waterfowl benefits are incorporated into all reservoirs exceeding one acre in size. Enhancement may include fencing, construction of nesting islands, and/or other structures and planting native food and cover species.

16. Protect and enhance riparian habitat within the Crutcher Crossing allotment (0593) by permanently closing the allotment to livestock grazing.

17. Protect raptor nests and manage adjacent vegetation to ensure adequate habitat for prey species. Allow no disturbance within 0.5 mile radius of any known golden eagle nest between February 2 and June 30 and other species' nests between March 15 and June 30.

18. Ensure all future power poles on public lands are designed to prevent raptor electrocution. Evaluate redesign of existing power poles to prevent raptor electrocution.

19. Ensure management to maintain (good/excellent) and improve (poor/satisfactory) habitat for raptors and their prey species receives priority consideration within the Snake River Birds of Prey National Conservation Area as detailed in the Snake River Birds of Prey Area Management Plan. Management actions in the current and subsequently approved Snake River Birds of Prey National Conservation Area Management Plan(s) will have precedence over the Owyhee Resource Area RMP within the boundary of the Snake River Birds of Prey National Conservation Area.

20. Prohibit all Animal Damage Control (Wildlife Services) activities within the ORA.

Fishery Habitat

FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals

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will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Adjust livestock grazing and OHMV use as described in the Livestock Grazing and Recreation sections for Alternative D to conserve fishery habitat.

2. Prevent new and control existing surface disturbing activities on soils with high or very high erosion hazard rating by restricting or eliminating OHMV use, livestock grazing use, road building, juniper harvest, and eliminating mechanical range treatments and prescribed fire.

3. After fires, eliminate livestock grazing and OHMV use for a minimum of three calendar years and then evaluate suitability for reintroduction.

4. Improve watershed hydrologic function by implementing riparian management, protection and restoration efforts so at least 75% of riparian areas are in proper functioning ecological condition within 8 years of initiating the RMP. Obtain 90% in proper functioning ecological condition within 20 years.

5. Expand and improve instream native fishery habitat by improving stream habitat on perennial and intermittent streams having the potential to sustain year-round native fisheries.

6. Purchase lands or easements, use land exchange, and/or other authorities to provide access to perennial streams or sites where habitats currently support or can be developed to sustain native aquatic species.

7. Dispose of aquatic/fishery habitat only following an evaluation by a biologist and when lands of greater value and similar habitat can be obtained in the public interest.

8. Livestock grazing management practices will be established which ensure the recovery of threatened or endangered species, prevent species listed by the U.S. Fish and Wildlife Service or National Marine Fisheries Service as category 1 or 2 from becoming threatened or endangered, and prevent other special status species from being considered for listing as under the Endangered Species Act.

9. Increase population levels of federal and state designated threatened, endangered, candidate, or sensitive aquatic and fishery species to levels where their existence is no longer threatened and there is no need for federal or state listing.

10. In the absence of an approved and implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing by July 15th, or earlier if necessary, in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian/wetland areas and regardless of the monitoring status of the pasture. See Appendix LVST-1 and Table RIPN-1 for affected allotments and Table LVST-D for livestock grazing systems.

[redacted]

11. Recommend to the State of Idaho establishment of minimum instream flows on perennial streams managed by the BLM within seven years to protect fishery habitat.

12. Protest all water right applications which would degrade or adversely affect fishery habitat on BLM administered lands.

13. In pastures where the July 15 end-of-grazing-season constraint has been invoked, streambank trampling damage occurring in the current year will not exceed 25% of the linear length of the streambanks (e.g., 100 linear feet of stream has 200 feet of streambanks of which no more than 50 feet will sustain trampling damage). In addition, an overwinter herbaceous stubble will be left in all streamside riparian areas to provide for streambank and channel stability, improved vegetation composition and structure, and hydrologic function. This residual stubble will be a minimum of six inches in height and will consist of herbaceous riparian forage species. When these conditions are not met, adjustments in livestock numbers, access, and/or grazing season will be made.

FISH 2: Improve reservoir fisheries, when appropriate, in consultation with State agencies and adjacent landowners.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations water at a level of quality which provides protection for fish and wildlife.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. Adjust livestock grazing and OHMV use as described in the Livestock Grazing and Recreation sections to conserve habitat for wildlife.

2. Prevent new and control existing surface disturbing activities on soils with high or very high erosion hazard rating by restricting or eliminating OHMV use, livestock grazing use, road building, juniper harvest, and eliminating mechanical range treatments and prescribed fire.

3. After fires, eliminate livestock grazing and OHMV use for a minimum of three calendar years and then evaluate suitability for reintroduction.

4. Establish self-sustaining, native fisheries in all existing and future reservoirs of appropriate size.

5. Acquire through land purchase, exchange, and/or other authorities; water rights, lands or easements to existing reservoirs or sites where habitats currently support or can be developed to sustain native aquatic species or are crucial to the sustainability of important native aquatic species.

[redacted]

6. Livestock grazing management practices will be established which ensure the recovery of threatened or endangered species, prevent species listed by the U.S. Fish and Wildlife Service or National Marine Fisheries Service as category 1 or 2 from becoming threatened or endangered, and prevent other special status species from being considered for listing as under the Endangered Species Act.

7. Increase population levels of federal and state designated threatened, endangered, candidate, or sensitive aquatic and fishery species to levels where their existence is no longer threatened and there is no need for federal or state listing.

8. In the absence of an approved and implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing by July 15th, or earlier if necessary, in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian/wetland areas and regardless of the monitoring status of the pasture. See Appendix LVST-1 and Table RIPN-1 for affected allotments and Table LVST-D for livestock grazing systems.

Special Status Species

SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended. See Tables SPSS-1 and SPSS-2.

Rationale: Protection and recovery of threatened and endangered species is mandated under the Endangered Species Act of 1973, as amended. BLM Manual 6840 also directs that BLM shall carry out management activities consistent with the principles of multiple-use for the conservation of proposed, candidate, BLM sensitive and State species of special concern species and their habitat. It also directs that BLM shall ensure that any activities authorized, funded or carried out do not contribute to the need to list any species.

Monitoring:
- Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.
- Monitor key populations and habitats or population/habitat objectives as identified in, AMPs or other activity plans.
- Appropriate techniques for special status species may be identified in the wildlife section of Appendix MONT-1 or additional techniques may be required or utilized.

1. Prepare, revise, and implement Allotment Management Plans (AMPs), recovery plans, and Habitat Management Plans (HMPs) to protect and enhance habitat where conflicts or threats exist to ensure that objectives for special status plant and animal species are met. Ensure that all activity plans have objectives for special status species where they are present.

2. Allow no habitat alteration, disturbance or disposal of public lands within special status species habitat unless such actions can be biologically justified.

[redacted]

3. Protect special status plant and animal species and habitats from the adverse impacts of surface disturbing activities, vegetation manipulation, land tenure adjustments and livestock grazing.

4. Restrict livestock grazing, where necessary, to protect and enhance habitat for special status species. Adjust overall livestock grazing management practices to maintain (good/excellent) and improve (poor/satisfactory) habitat for special status plant and animal species. This may include permanently closing allotments or pastures to livestock grazing.

5. Livestock grazing management practices will be established which ensure the recovery of threatened or endangered species, prevent species listed by the U.S. Fish and Wildlife Service or National Marine Fisheries Service as category 1 or 2 from becoming threatened or endangered, and prevent other special status species from being considered for listing as under the Endangered Species Act.

6. Limit deterioration of special status plant and animal species and their habitats by restricting OHMV activity. Close critical habitat to all OHMV activity. See Maps SPSS-1, SPSS-2 and RECT-1D.

7. Protect bald eagle winter habitat and populations by restricting activities that would result in disturbance to wintering eagles or adversely impact roost trees, prey species or other habitat components. Follow management actions in the current and future approved Snake River Birds of Prey National Conservation Area Management Plan(s).

8. Enhance bald eagle winter habitat by planting additional native roost trees.

9. Facilitate the reintroduction of peregrine falcons into suitable nesting habitat within the Owyhee River canyons and other suitable habitats.

10. Facilitate the reintroduction and natural reestablishment of California bighorn sheep into suitable habitats. Bighorn sheep should be considered the primary resource value where they exist or could exist and all disturbing impacts should be minimized or eliminated to guarantee the health of the sheep population.

11. Limit livestock impacts to California bighorn sheep by allowing no livestock waters or other livestock facilities within two miles of the Owyhee River California Bighorn Sheep ACEC. Extend this restriction to other areas as future bighorn populations become established.

12. Protect and enhance California bighorn sheep and other wildlife and riparian habitat by closing the Crutcher Crossing allotment (0593) to livestock grazing.

13. Immediately eliminate all domestic sheep grazing from public lands to reduce the chance of disease transmission from domestic to bighorn sheep and eliminate the possibility of a bighorn sheep die off. AUMs can convert from sheep to cattle. Cattle stocking rates will be set at levels which do not degrade bighorn sheep forage availability.

14. Maintain (good/excellent) and improve (poor/satisfactory) grassland habitat for long-billed curlew. Eliminate livestock grazing from April 1 - June 15th to improve grasslands northeast of state highway 78 to provide suitable nesting habitat for long-billed curlews.

15. Construct artificial nesting platforms for ferruginous hawks in areas where suitable nesting sites are determined to be limiting.

16. Protect all existing and potential northern goshawk and burrowing owl nesting habitat by retaining all forest habitat types in public ownership, allowing no prescribed burning or logging of their suitable habitat or allowing surface disturbing activities.

17. Facilitate reintroduction of sharptail grouse and mountain quail into suitable habitats. Restrict livestock grazing and other management practices before and after reintroduction to protect and enhance suitable habitat.

18. Acquire additional high quality habitat through purchase, exchange, and/or other authorities to enhance management for special status species.

Wild Horse Management

WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

Rationale: The Wild and Free-Roaming Horse and Burro Act of 1971 (PL 92-195) requires the BLM to manage wild free-roaming horses and burros under multiple-use in a manner that is designed to achieve a thriving natural ecological balance on public lands.

Monitoring:
- Monitoring of the vegetation includes collection of rangeland health assessment, actual use, utilization, trend, climate, and ecological site inventory data by various methods.
- Wild horse monitoring also includes collection of data concerning population characteristics. See Appendix MONT-1 for details concerning procedures.

1. Manage wild horses in a wild horse range containing the Hardtrigger, Black Mountain, and Sands Basin Herd Management Areas (HMAs). See Map WHRS-D and Table WHRS-1D for allotment specific details.

2. Maintain wild horse population levels at appropriate management levels within the HMAs and adjust the AML range of the wild horses on the basis of monitoring to ensure a thriving natural ecological balance and range and ecosystem health within the HMAs. See Map WHRS-D and Table WHRS-2D for allotment specific details.

	Allocation (AUMs)	AML	Population Range
Hardtrigger	1,313	83	66 - 100
Black Mountain	587	38	30 - 45
Sands Basin	429	28	22 - 33
Total	2,329	149	118 - 178

[redacted]

3. Maintain the Sands Basin HMA at current size.

4. Allocate any increase in available forage to wild horses and wildlife to meet management objectives. Any decrease in available forage as a result of range depletion will be accommodated by first reducing allocation to livestock, then wildlife.

5. Perpetuate characteristics (color, size, type, and conformation) that link the wild horses with their cultural and historical background.

6. Manage and limit public use (including OHMV use and equestrian use) in HMAs to protect wild and free roaming horses.

7. Acquire legal access to specific sources of private land and water upon which wild horses may depend. Retain all Federal land within the HMAs. Acquire State land within or near the HMAs to ensure the integrity of individual herds and to ensure adequate water sources for wild and free roaming horses.

8. Remove range improvements which restrict movement and normal distribution of wild horses within the wild horse range.

9. Protect wild horses from unauthorized capture, harassment, or death within the HMAs.

10. Minimize wild horse and OHMV use conflicts by closing OHMV recreational facilities at Hemingway Butte.

Livestock Grazing Management

LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

Rationale: The Taylor Grazing Act directs stabilization of the livestock industry dependent upon public lands. It also directs that action be taken to stop injury to public grazing lands and provide for orderly use. The Federal Land Policy Management Act 1976 - Section 201(1) mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management are to be used as management goals and management techniques for the betterment of the environment, protection of cultural resources, and sustained productivity of the range.

Monitoring:

- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods.
- Monitoring also includes use supervision and compliance checks. See Appendix MONT-1 for details concerning procedures.

Unless stated otherwise, all actions listed below will start immediately upon approval of the Owyhee RMP. See Tables LVST-D and RIPN-1 and Appendix LVST-1.

1. Adjust livestock grazing in the Owyhee Resource Area. These actions will result in initial stocking levels of approximately 52,685 AUMs. The 20-year stocking level is projected to be 52,685 AUMs. The average actual use (1988-1997) has been 96,676 AUMs.
   - Eliminate livestock grazing on all allotments where 75% or more is in early seral stage. (This affects 217,727 acres and eliminates 21,518 AUMs.)
   - Adjust stocking rates for each allotment to allow a maximum of 40% annual forage utilization of key forage species where 40% or more is in late seral, and 10% or less is in early seral condition; otherwise allow a maximum 30% annual forage utilization of key forage species. (Results: 856 acres will be grazed at 40% utilization, and 1,080,151 acres will be grazed at 30% utilization.) Stocking rates may be adjusted further to protect the full spectrum of environmental, ecological, cultural, and recreational values of the ORA.
   - In the absence of an approved and implemented grazing system designed to provide for satisfactory and functional riparian/wetland areas, immediately eliminate livestock grazing by July 15th, or earlier if necessary, in all pastures with riparian/wetland areas to meet resource objectives, regardless of the size of riparian/wetland areas and regardless of the monitoring status of the pasture. See Appendix LVST-1 and Table RIPN-1 for affected allotments and Table LVST-D for livestock grazing systems.
   - Allow a maximum 10% annual utilization of woody riparian vegetation within each allotment.
   - A minimum stubble height of 6 inches will be present on all riparian areas at the end of the growing season.
   - Eliminate grazing within riparian/wetland areas after the growing season.
   - Provide a minimum of three calendar years rest from livestock grazing for all upland areas where livestock grazing has been eliminated, and then evaluate suitability for reintroduction of livestock. Upon reintroduction, stocking rates will be adjusted to ensure the pasture/allotment will exhibit positive trend toward the goal of 40% or more in late seral and less than 10% early seral stage.
   - Do not allow range improvements that would increase livestock grazing of existing potential natural condition areas; evaluate these areas for Research Natural Area designation.

2. Stocking rates and grazing systems will be reviewed at least every five years and may be adjusted to protect the full spectrum of environmental, ecological, cultural, and recreation values of the ORA.

3. Reducing stocking rates will be the first choice in obtaining resource objectives, e.g. improved ecological site conditions. Rotational livestock grazing schemes, such as rest rotation and short-duration livestock grazing, will be considered only after stocking rate reductions are first implemented.

4. Land treatments and range improvements solely oriented towards maintaining or increasing livestock forage will not be allowed. Land treatments and range improvements will be limited to those that resolve an identified resource problem and contribute to achieving a properly functioning ecosystem.

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5. Livestock grazing schedules will include period(s) of rest during times of critical plant growth and regrowth. The timing and duration of rest periods will be developed for each allotment by the authorized officer.

6. Grazing use will be adjusted before the next growing season where it is visually obvious or where monitoring data or professional judgement reveal that key resources or watershed functional requirements are not being met because of livestock overuse.

7. Continuous season-long livestock grazing will not be authorized until it has been demonstrated it is consistent with achieving proper functioning ecosystem condition and meeting identified resource objectives. Year-long grazing will not be authorized.

8. Terms and conditions of each permit or lease will include stocking rate, season-of-use, kind of livestock, deferment, rest, or other strategies that maintain (good/excellent) and improve (poor/satisfactory) vegetation communities and ecosystem function to achieve resource objectives.

9. Allow no ephemeral (temporary non-renewable) livestock grazing (annual and perennial).

10. Mineral, protein, and other supplements, including forage, will be placed at least 1/4 miles from riparian-wetland areas, springs and seeps, and perennial streams and rivers. Site storage of materials is not allowed.

11. BLM will retain sole title and ownership of all future, permanent range improvements. Where deemed necessary to achieve resource objectives, the BLM will acquire sole title and ownership of existing range improvements through compensation, exchange, and/or other authorities.

12. Any wells that are drilled will be at least 1/4 miles from riparian/wetland areas and water that is made available to livestock will be at least 1/4 miles from riparian/wetland areas.

13. Complete AMPs for all allotments within 20 years. Prioritize starting with I, then M, then C category allotments.

14. Exclude livestock grazing on 8,794 acres. Areas excluded from grazing are shown on Map LVST-D.

Fire Management

FIRE 1: Suppress wildfires by taking appropriate management response utilizing the range of acceptable acreage limits listed for each fire management zone (FMZ) within the resource area. The current Fire Management Plan (FMP) is reviewed periodically and may be revised in conformance with RMP. See Map FIRE-1.

FMZ 1.3: (BOP West) less than 200 acres at least 90% of the time (annual grasses).
FMZ 2.7: (Jordan Valley) less than 500 acres at least 90% of the time (perennial grasses; the west side of the Owyhee Resource Area, south to Jordan Valley).

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FMZ 2.8: (Salt Desert) less than 200 acres at least 90% of the time (perennial grasses; the foothills north to near the Snake River).
FMZ 3.1: (South Mountain) less than 1,000 acres at least 90% of the time (woodlands; south of Triangle - Jordan Valley road).
FMZ 3.2: (Silver City) less than 500 acres at least 90% of the time (woodlands; north of the Triangle - Jordan Valley road).
FMZ 3.3: (Wilderness Study Areas) less than 1,000 acres at least 90% of the time (all WSA's within the Owyhee Resource Area).
FMZ 4.1: (Canyonlands) less than 500 acres at least 75% of the time.

Rationale: The BLM feels that wildfires must have appropriate action taken, using the Fire Management Plan (FMP) and the identified value-at-risk. FMP objectives and value-at-risk are predetermined. Wildfires are evaluated for resource damage, suppression cost plus "net resource value change", and management objectives.

Monitoring:
- Fire occurrence reports, annually, with percentage of wildfires for each FMZ.
- Fire occurrence reports and individual Fire Report for each wildfire annually.
- Annually review fire occurrence report, with the LSRD FMP.

1. Reduce fire suppression efforts to reintroduce the natural role of fire in ecosystem processes.

2. Reduce the number and acres of human caused fires in FMZ 1.3 and FMZ 2.8 through prevention and education.

3. Modify the Boise District FMP to allow natural and human caused fires in wilderness study areas (WSAs) that would mimic historical fire regimes if allowed to burn.

FIRE 2: Decrease soil erosion and sediment yield, restore forage values, and restore upland habitat values and riparian values using fire rehabilitation procedures following a wildfire.

Rationale: The Emergency Fire Rehabilitation (EFR) program calls to mitigate in the most cost-effective and expeditious manner possible, the adverse effects of fire on the vegetation-soil complex, the loss of water control and deterioration of water quality, and the detrimental alteration of crucial wildlife habitats.

Monitoring:
- BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidance for planning monitoring studies associated with emergency rehabilitation treatments.
- At least three growing seasons after treatments are needed for monitoring and evaluations. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Waterbar and reseed using native plant species all firelines constructed on slopes of 15% or more to prevent erosion.

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2. Backfill all firelines constructed by heavy equipment. Reseed using native plant species to restore natural vegetation.

3. Apply rehabilitation seed mixtures of native plants to meet watershed, wildlife and riparian objectives through restoration of native plant communities.

4. Eliminate livestock grazing and close OHMV use for all burned areas for at least three calendar years. Reintroduce livestock grazing only after rehabilitation of burned areas and firelines has been demonstrated.

5. Allow natural revegetation in WSAs and future designated wilderness. If reseeding has been determined to be necessary to protect wilderness values, use staggered or irregular hand or aerial seedings of native plant species in WSAs to blend with the landscape and existing native plant communities.

6. Conduct watershed reclamation work in WSAs and future designated wilderness to prevent soil erosion that would impair wilderness values and threaten sensitive species such as redband trout. Conduct watershed reclamation work in WSAs in such a way as to not impair wilderness values and following the guidelines of the Boise District Wilderness Interim Management Plan, updated 1987.

7. Use rehabilitation techniques in WSAs and future designated wilderness that are least damaging to wilderness resources and following the guidelines of the Boise District Wilderness Interim Management Plan, updated 1987.

FIRE 3: Restore natural disturbance regime to improve rangeland health and the biodiversity of native plant communities, using the example for a Prescribed Fire Activity Plan, and the example for a Wilderness Fire Activity Plan.

Rationale: Western juniper distribution in the Owyhee Mountains has nearly doubled since 1860. This expansion continues into areas not previously thought to be dominated by juniper such as into sites dominated by deep loamy soils. The increased density of western juniper has and continues to eliminate desirable understory vegetation. Also, there are areas with continual fuels of big sagebrush and western juniper that when ignited under the right conditions, will result in large catastrophic fires resulting in significant loss of wildlife and watershed values. Fire needs to be managed within these areas. Fire should be introduced at times where there is a better likelihood of control and the size of the burn acreage can be limited.

Monitoring:

- Annually review fire occurrences report, with the LSRD FMP. BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidelines for planning monitoring studies. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Use natural and prescribed fire in the ORA to treat a maximum of 9,000 acres per year.

2. Use natural and prescribed fire in the ORA to mimic the historical fire regime of affected plant communities.

[redacted]

FIRE 4: Ensure that BLM controlled management actions do not exceed the National Ambient Air Quality Standards by airshed as established in the Clean Air Act and administered by guidelines in the State Implementation Plan (SIP), when in place, and the EPA's "Prescribed Burning Background Document and Technical Information Document for Prescribed Burning Best Available Control Measures" or EPA's Smoke Management BMP.

Rationale: Smoke management is one element (both prevention of significant deterioration (PSD) and total suspended particulates (TSP)) of several elements in the National Ambient Air Quality Standards, established in the Clean Air Act (1967) and amendments to the Act (1972,1977).

Monitoring:

- Smoke management monitoring will occur under the requirements and guidelines for air quality and smoke management being developed by the State of Idaho.

1. Manage smoke from prescribed fire through techniques of avoidance, dilution, and emission reduction.

FIRE 5: Modify standard suppression techniques to protect sensitive resource values.

Rationale: ACECs, WSAs and other sensitive areas contain important resource values. Some resource values could be damaged or destroyed by fire or fire suppression techniques, such as destroying an historical structure in the Silver City area or using a bulldozer to blade over the Oregon Trail. Standard suppression techniques need to be modified to protect these sensitive resource values.

Monitoring:

- Annual fire occurrence reports.

1. Restrict the use of heavy equipment in fireline construction in WSAs, ACECs, riparian habitat areas and cultural areas, the Silver City and DeLamar Historic Districts, and the Oregon Trail. See Appendices FIRE-1, FIRE-2, FIRE-3 and FIRE-4 and Table ACEC-D.

2. Use heavy equipment in fireline construction in WSAs and Section 202 lands only to protect human life.

[redacted]

Lands

LAND 1: Acquire through exchange, purchase or donation and maintain those lands which have high resource values and which provide for efficient and effective management and administration.

Rationale: Section 202 of FLPMA makes it the policy of the United States that the public lands be retained in Federal ownership. Sections 205 and 206 of FLPMA provide mechanisms for consolidating land ownership patterns through acquisitions and disposals. Consolidated ownership patterns would provide for better land management and administration for both public and non-public landowners. Retention and acquisition of lands in public ownership containing significant resource values would provide for long-term protection and management of those values. Disposal of isolated, unmanageable tracts would provide more efficient use of lands better suited in non-public ownership and concentrate management efforts in significant blocks of public lands.

Monitoring:
- Established Annual Work Plan (AWP) reporting procedures.
- Review access needs on a regular and periodic basis.
- Normal BLM accomplishment tracking process.
- Apply existing resource monitoring procedures on adjacent or comparable lands to newly acquired lands.

1. Priority of acquisition will be toward lands that enhance wildlife, recreation, and wilderness to complement existing lands.

2. Within one year, develop and publish a prioritized list of highest potential purpose lands to acquire, and also an acquisition plan.

3. Manage newly acquired lands for the highest potential purpose for which they were acquired. Manage acquired lands with unique or fragile resources to protect those resources. Eliminate livestock grazing from all newly acquired special purpose lands. Develop management prescriptions before obtaining new lands.

LAND 2: Make available for disposal approximately 325,061 acres of public land by sale, exchange, or Recreation & Public Purposes Act during the life of the plan. Retain in federal ownership those lands not identified for disposal.

Rationale: FLPMA 203, 206, 212. Disposal of those lands that are difficult and uneconomic to manage or that would serve important public objectives is important for more efficient overall management of the public lands and community relations.

Monitoring:
- Normal BLM accomplishment tracking processes.

1. Consolidate public lands by land tenure adjustment to acquire lands having higher public values and disposing of lands having lower public values by the various authorities available. See Table LAND-1 and Map LAND-3D.

[redacted]

Zone 1. Retain lands in public ownership in Zone 1. Lands in Zone 1 have been determined to have high public values including but not limited to; Wilderness Study Areas, Wild and Scenic Rivers, ACEC's for protection of botanical and archaeological values, crucial wildlife habitat and recreational values. Land in this zone will be considered for R&PP actions on a site specific basis.

Zone 2. Retain lands in public ownership in Zone 2 except for voluntary exchanges to resolve land use conflicts within this zone. Zone 2 coincides with the Snake River Birds of Prey National Conservation Area boundary. Public Law 103-64, passed by Congress and signed into law August 4, 1993, established the Snake River Birds of Prey National Conservation Area. This law withdrew all Federal lands within the conservation area from all forms of entry, appropriation, application, selection and disposal except for voluntary land exchanges which would resolve ownership related land use conflicts within the conservation area.

Zone 3. Exchange public lands within Zone 3 only with the State of Idaho to further "block" public lands in this zone. Land in this zone will be considered for R&PP actions on a site specific basis.

Zone 4. Make lands available for disposal in Zone 4. Lands designated for disposal that meet the criteria found at 43 CFR 2710.0-3(a)(3) are designated as Zone 4. These lands meet the criteria for disposal by sale, but may also be disposed of by any other authority available to BLM, except the Desert Land Act and the Carey Act, for transfer of title out of public ownership.

Zone 5. Make lands available for disposal in Zone 5. The term "disposal", unless specifically qualified, refers to any BLM authority which transfers title out of public ownership except sale, the Desert Land Act and the Carey Act.

2. Exchanges or disposal of lands in Zones 2, 3, 4, and 5 may be allowed as long as the net overall area of the ORA does not reduce in size by more than 1%.

3. Public lands currently under Desert Land (DLE) application that are relinquished or rejected will not be made available for further application for agricultural purposes.

LAND 3: Authorize and manage the use of public lands for rights-of-way, right-of-way reservations, easements, permits, leases, licenses, agreements, etc., except for those areas identified as exclusion areas.

Applications for use of the public lands will be evaluated on a case by case basis using current existing procedures.

Rationale: FLPMA 212, 302, 307, 501, 507, 43 CFR 2800 and 2920. Allowing for use of the public lands by providing continuity for use authorizations.

Monitoring:
- Normal BLM accomplishment tracking process.

1. Exclude new rights-of-way opportunities within all WSAs, future designated wilderness, SRMAs, ACECs, Section 202 lands, crucial wildlife habitat and wild horse areas. See Table ACEC-D and Map LAND-D.

[redacted]

2. Do not allow changes in current rights-of-way status (i.e., surface, subsurface, or overhead).

3. Prohibit the following activities on public lands:
   - New public waste disposal sites.
   - New or existing private waste disposal sites.
   - Storage or disposal of hazardous waste.
   - Dumping of fuel and other hazardous materials from airborne military aircraft above the ORA.

LAND 4: Acquire and maintain legal public and/or administrative access to public land consistent with other resource values.

Rationale: Due to the generally fragmented nature of public lands in some parts of the resource area, several critical access points, crossing private lands, lack legal access. Legal access is needed in these areas to ensure continued effective administrative and public use of these lands. This need becomes more acute as public use of these lands increases, and as land owners become more aware of the value of public and private land for recreation and other purposes. Land tenure adjustment actions (exchanges or fee purchases) can be a valuable tool for access acquisitions. However, without careful review, lands actions, particularly exchanges, can result in lost access. Other tools can also be utilized, such as constructing new roads around lands where access is restricted and the cost of acquisition would exceed the cost of construction or where such acquisition is not feasible.

Monitoring:
Normal BLM tracking process. Review access needs on a regular basis.

1. Acquire public or administrative access where public demand or an administrative need exists. Place emphasis on providing access to areas containing high resource values. See Map LAND-4.

2. Ensure public access is secured or acquired through all land tenure transactions.

3. Construct new roads around private lands where easement acquisition is not feasible, but significant access needs have been identified.

4. Exclude ACECs, SRMAs, and Section 202 lands from development of new roads or jeep trails, except for those described in Objective: RECT 4: for Alternative D. Do not develop new roads or jeep trails within WSAs.

LAND 5: Identify and abate unauthorized use of public lands.

Rationale: FLPMA 102, 303, 43 CFR 9230. The abatement of unauthorized uses protects resource values on the public lands and prevents loss of revenue due the United States.

[redacted]

Monitoring:
- Monitoring will include regular surveillance of lands and resources where a high probability of unauthorized use exists, as well as follow-up on information concerning possible trespass provided by the staff and by the public.
- Normal BLM accomplishment process will be utilized to track implementation of this decision.

1. Detect, confirm, and abate all unauthorized use on public land.

2. Develop and implement a livestock season-of-use and stocking rate monitoring plan. Where livestock trespass is identified the first time, fine the permittee. If trespass is found again within 5 years, implement maximum penalties for that permittee.

LAND 6: Withdraw certain public land for protection from degradation and protection of identified resource values.

Rationale: Section 204 of FLPMA gives the Secretary the authority to make, modify, extend or revoke withdrawals and mandates review of withdrawals. Bureau Manual 2300 provides guidance. The placement of withdrawals on designated parcels of the public lands segregates them from certain uses to prevent unnecessary and undue degradation of a resource.

Monitoring:
- Normal BLM tracking process.
- Review withdrawals on a regular basis.

1. Withdraw from locatable mineral entry, close to fluid mineral leasing and mineral material disposal those BLM lands shown to contain high resource values and lands that may be damaged or degraded using the existing management directives. See Tables LOCM-D, FLUM-D and MMAT-D.

2. Recommend that the Secretary of the Interior administratively designate or that Congress designate the Owyhee Uplands National Conservation Area. The NCA would encompass approximately 1.12 million acres with 442,606 acres in the Owyhee Resource Area corresponding with the Owyhee Canyonlands SRMA boundary. See Map RECT-2D.

LAND 7: Provide management prescriptions on those lands that have been returned to BLM management through revocation of withdrawals.

Rationale: FLPMA 204. Bureau Manual 2355 and the Annual Work Plan (AWP) process provides guidance. Lands currently under the jurisdiction of other agencies or lands currently withdrawn for a specific use need a management prescription when that existing withdrawal is revoked.

Monitoring:
- Normal BLM tracking process.

1. Manage lands that have been returned to BLM through revocation of withdrawals in the same manner as adjacent lands. If returned lands have a significant resource, recreation, wildlife, cultural value, or other important values, manage those lands for continued protection and enhancement of the value identified.

[redacted]

Locatable Minerals

LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

Rationale: The 1872 Mining Law (30 USC 22 et. seq), along with the Mining and Mineral Policy Act of 1970, declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102, reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. The National Materials and Minerals Policy, Research, and Development Act of 1980 restates the need to implement the 1970 act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making.

Monitoring:
- Regular surveillance to detect and confirm unauthorized mining activity.
- Monitor active mining operations.
- Make periodic inspections consistent with BLM policies.
- Continue the review of all pertinent literature.

1. Withdraw from mineral entry:
    - All SRMAs, ACECs, the SRBOPNCA, and Section 202 study lands.
    - All WSAs and future designated wilderness lands.
    - All eligible and future designated Wild, Scenic, or Recreational Rivers; and their corridors.
    - All known and future discovered important paleontological and cultural resource sites.
    - All areas where Special Status Species might be negatively impacted.

See Table LOCM-D.

2. Limit adverse impacts of locatable mineral exploration and development in wetland and riparian habitat through inclusion of stipulations on mining notices and Plans of Operation. See Table LOCM-D.

3. Define reclamation standards and present plan to the public before mineral entry is allowed to begin.

4. Secure maximum bonds allowed by law for full reclamation of impacted areas.

5. Secure maximum bonds allowed by law sufficient to restore potential damage caused by accidents or emergencies.

6. Identify, close, and rehabilitate all known unauthorized sites.

[redacted]

Fluid Minerals

FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

Rationale: The Mineral Leasing Act of 1920 as amended, the Geothermal Steam Act of 1970 as amended, and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal government to foster and encourage private enterprise in the development of domestic mineral resources. FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources.

Monitoring:
- Incorporate stipulations on leases as appropriate.

1. Closed to fluid mineral development:
    - All SRMAs, ACECs, the SRBOP NCA, and Section 202 study lands.
    - All WSAs and future designated wilderness lands
    - All eligible and future designated Wild, Scenic or Recreational Rivers
    - All known and future discovered important paleontological and cultural resource sites.
    - All areas where Special Status Species might be negatively impacted. See Table FLUM-D.

2. Limit adverse impacts of fluid mineral exploration and development in wetland and riparian habitat through inclusion of stipulations on mineral leases and Applications for Permit to Drill (APDs). Lease with no surface occupancy, seasonal occupancy and other surface occupancy stipulations certain areas to protect identified resource values. See Table FLUM-D.

3. Secure maximum bonds allowed by law for full reclamation of impacted areas.

4. Secure maximum bonds allowed by law sufficient to restore potential damage caused by accidents or emergencies.

5. Define reclamation standards and present plan to the public before fluid mineral leasing is allowed to begin.

6. Identify, close, and rehabilitate all known unauthorized sites.

[redacted]

Mineral Materials

MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

Rationale: The Materials Act of July 31, 1947 as amended (30 USC 601) and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nations need for domestic sources of minerals and other resources.

Monitoring:

- Geologist and other resource specialists to note unauthorized use, make periodic inspections for authorized use and maintain records in accordance with BLM manuals.

1. Closed to mineral material disposal:
    - All SRMAs, ACECs, the SRBOPNCA, and Section 202 study lands.
    - All WSAs and future designated wilderness lands
    - All eligible and future designated Wild, Scenic or Recreational Rivers
    - All known and future discovered important paleontological and cultural resource sites
    - All areas where Special Status Species might be negatively impacted. See Table MMAT-D.

2. Limit adverse impacts of mineral materials sales in wetland and riparian habitat through inclusion of stipulations on material leases.

3. Detect, confirm, and abate unauthorized use on the public lands. Effect reclamation of lands damaged by unauthorized use.

4. Secure maximum bonds allowed by law for full reclamation of impacted areas.

5. Secure maximum bonds allowed by law sufficient to restore potential damage caused by accidents or emergencies.

6. Define reclamation standards and present plan to the public before disposal is allowed to begin.

7. Where necessary, and upon public review, close lands to mineral material disposal that contain an active mineral material site and are not in the public interest or contribute to resource degradation.

8. Identify, close, and rehabilitate all known unauthorized sites.

[redacted]

Recreation

RECT 1: Provide for off-highway motor vehicle (OHMV) use on public lands while protecting sensitive resource values.

Rationale: Federal regulations require the BLM to designate all public lands as either open, limited, or closed to off-highway (or off-road) motor vehicle use for the purpose of meeting public demand for OHMV activities, to protect natural resources and the safety of the public, and to minimize conflicts among various user groups. Federal regulations pertaining to OHMV planning include 43 CFR 8342; Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877: February 9, 1977); Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959h; May 25, 1977).

Monitoring:
- Periodic patrols to check designation boundaries, signing, and recreational use.
- In the Owyhee Front SRMA, patrols will be weekly. In the rest of the ORA, patrols will be monthly.
- Establishment of baseline data and photo points to determine impacts of recreation use on soil, water quality, and vegetation resources.
- Rehabilitation of specific sites as necessary.
- Monitoring of administrative activities to ensure compliance with OHMV designations and related motorized access authority/exclusion decisions.

1. Manage OHMV recreational use on public lands in accordance with the following designations: See Map RECT-1D.

Open: Off-highway motorized vehicle use is allowed on all public lands without special restrictions, except as otherwise posted: 0 acres.

Limited - Level 1: Off-highway motorized vehicle use is limited to existing roads, jeep trails, motorcycle/ATV trails, and sand washes year-round, except as otherwise posted: 0 acres.

Limited - Level 2: Off-highway motorized vehicle use is limited to existing roads, jeep trails and motorcycle/ATV trails year-round, except as otherwise posted; with management option to close select lands to OHMV use from November 1 to April 30, except for designated routes; Snowmobiles restricted to designated areas in winter months: 384,965 acres.

Limited - Level 3: Off-highway motorized vehicle use is limited to existing roads and jeep trails, and to designated motorcycle and ATV trails year-round, except as otherwise posted. 0 acres.

Limited - Level 4: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; Snowmobiles restricted to designated areas in winter months: 13,120 acres.

Limited - Level 4-IMP: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; if released from wilderness consideration, lands are then managed as "Open": 0 acres.

[redacted]

Limited - Level 5: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round; lands are closed to OHMV use from November 1 to April 30, except for designated routes; Snowmobiles restricted to designated areas in winter months: 477,056 acres.

Limited - Level 6: Off-highway motorized vehicle use is limited to designated roads and trails year-round; Snowmobiles restricted to designated trails in winter months: 13,348 acres.

Limited - Level 7: Off-highway motorized vehicle use is limited to designated roads and trails year-round, except as otherwise posted; lands are closed to OHMV use from November 1 to April 30, except for designated routes: 92,441 acres.

Closed: All lands are closed to off-highway motorized vehicle use year-round: 339,061 acres.

2. Prohibit the construction of new vehicle routes for OHMV use within 1,000 feet of riparian and wetland areas, except at authorized crossings.

3. Prohibit the construction of new vehicle routes for OHMV use within 1,000 feet of known and future discovered paleontological and surface cultural sites.

4. Close and rehabilitate 70 miles of existing roads and jeep trails.

RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for recreation use of public lands as an integral part of multiple-use management. Dispersed, unstructured activities typify the recreational uses occurring on most public lands. Federal regulations (43 CFR 8300) authorize the BLM to designate administrative units known as special recreation management areas (SRMAs) where there is a need to commit to a higher level of financial investment in recreational facilities and a higher level of managerial presence than is typical of most BLM lands. A SRMA designation signifies a long-term commitment to manage the physical, social, and managerial settings of an area to sustain specific activities and experience opportunities. The delineations are based upon administrative/managerial criteria that reflect congressional designations (such as national wild, scenic or recreational rivers), similar or interdependent recreation values, homogenous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, and public concern.

Monitoring:

- Specific monitoring needs are to be determined during the preparation of SRMA activity plans. These needs will generally include:

a. Periodic patrols (several times yearly) to check boundaries, signing, and recreational use.

b. Establishment of baseline data and photo points to determine current impacts from recreational use.

c. Rehabilitation of specific sites as necessary, including the upgrading and development of recreation facilities.

d. Development of "Limits of Acceptable Change" studies, where suitable, to help determine appropriate levels and patterns of recreational use, and the influences of other resource uses.

[redacted]

1. Retain the boundaries of six existing SRMA designations totaling 213,467 acres. See Map RECT-2D. Manage the SRMAs for identified recreational opportunities and experiences.
   - Blackstock: 6,149 acres: Semi-primitive motorized and roaded natural
   - Jump Creek: 8,667 acres: Roaded natural and semi-primitive nonmotorized
   - Owyhee Front: 181,590 acres: Semi-primitive motorized and roaded natural
   - Silver City: 2,166 acres: Roaded natural and urban
   - Oregon National Historic Trail: 7,305 acres: Semi-primitive motorized and roaded natural
   - Snake River Birds of Prey: 7,590 acres: Semi-primitive motorized and roaded natural

2. Substantially enlarge the boundaries of the Owyhee Canyonlands SRMA designation to incorporate 453,963 acres that include the lands contained in the North Fork Canyon, North Fork Owyhee Back Country and Deep Creek SRMAs, as well as surrounding ERMA lands. Manage for primitive, semi-primitive and roaded natural opportunities and experiences. There is an additional 11,545 acres of this SRMA in the BRA.

3. Designate and establish boundaries for an additional 52,211 acres of SRMA lands which are to be incorporated into other existing SRMAs. See Map RECT-2D. Manage the SRMAs for identified recreational opportunities and experiences.
   - Guffey Butte Addition (SRBOPNCA): 2,635 acres: Semi-primitive motorized and roaded natural
   - Fossil Creek Addition (Owyhee Front): 23,524 acres: Semi-primitive motorized and roaded natural
   - Squaw Creek Addition (Owyhee Front): 26,052 acres: Semi-primitive motorized and roaded natural

4. Designate and establish boundaries for a 2,480-acre Boulder Creek SRMA to manage for primitive opportunities and experiences. See Map RECT-2D. This SRMA designation is in response to a wild and scenic river suitability recommendation for the eligible Boulder Creek-Rock Creek segment. Should this segment not be designated by Congress, the SRMA designation will be dropped and included in the ERMA.

5. Designate 597,870 acres as an extensive recreation management area (ERMA) and manage primarily for semi-primitive motorized and roaded natural opportunities and experiences.

RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Rationale: The National Wild and Scenic Rivers Act (P.L. 90-542), Section 5(d), requires the Secretary of the Interior to identify "river" segments which are eligible to receive consideration as potential wild, scenic, and recreational river areas. Section 5(d) further directs the Secretary to determine which eligible river segments should be evaluated in the BLM planning process "... as alternatives to the developments being planned." This evaluation is referred to as the suitability determination. The procedures by which the BLM determines eligibility and suitability are described in 43 CFR 8351 (Designated National Areas) and the USDI-USDA Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

Monitoring:
- Periodic (several times per year) patrols to check boundaries and affected river corridor lands, signing, and recreational use.

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[redacted]

- Establishment of baseline data and photo plots to determine current impacts from recreation use.
- Rehabilitation of specific sites as necessary, including the construction of small recreation sites at launch sites and take-outs, and the construction of portage trails around unrunnable or dangerous rapids.
- Undertake "Limits of Acceptable Change" studies on affected river corridors to determine the appropriate level and pattern of recreation use, and the influences of other resource uses.

1. Recommend to the Secretary of the Interior that 223.0 miles of eligible rivers and streams are suitable for national wild, scenic, or recreational river designation. See Map WSR-D.
    - South Fork Owyhee River: Wild: 26.5 miles
    - South Fork Owyhee River: Recreational: 1.5 miles
    - Little Owyhee River: Wild: 9.0 miles
    - Little Owyhee River: Recreational: 0.5 miles
    - East Fork Owyhee River: Wild: 66.0 miles
    - Bald Mountain Canyon Creek: Wild: 3.0 miles
    - Piute Creek: Wild: 3.0 miles
    - Juniper Creek (East Fork): Wild: 3.0 miles
    - Dukes Creek: Wild: 3.0 miles
    - Deep Creek: Wild: 32.0 miles
    - Nickel Creek: Wild: 8.0 miles
    - Red Canyon Creek: Wild: 4.0 miles
    - Petes Creek: Wild: 3.0 miles
    - Current Creek: Wild: 7.5 miles
    - Current Creek: Scenic: 1.5 miles
    - Corral Creek (Current Creek): Wild 3.0 miles
    - Lower North Fork Owyhee River: Wild: 4.0 miles
    - Upper North Fork Owyhee River: Wild: 16.0 miles
    - Juniper Creek: Wild: 1.5 miles
    - Cabin Creek: Wild: 3.5 miles
    - Corral Creek (North Fork): Wild: 1.0 miles
    - Noon Creek: Wild: 3.0 miles
    - Pleasant Valley Creek: Wild: 3.5 miles
    - Boulder Creek-Rock Creek: Wild: 11.5 miles
    - Jump Creek: Wild: 4.0 miles
    - Jump Creek: Recreational: 0.5 miles

2. Provide for interim protection of wild, scenic, and recreational river values while awaiting a determination by Congress. See Appendix RECT-1 for management standards for the three river classifications.

RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

[redacted]

Rationale: The BLM is committed to maintaining recreation facilities to a standard that protects the resource, the public and the public investment, and fosters pride of public ownership, and to developing appropriate recreation facilities, balancing public demand, protection of public land resources, and fiscal responsibility. BLM planning guidance requires the BLM to coordinate with other federal and state plans such as the Idaho Statewide Comprehensive Outdoor Recreation Plan (SCORP) from the Idaho Department of Parks and Recreation and the River Basin Plans of the Idaho Department of Water Resources, and include applicable data and findings in BLM planning documents. Data taken from the Idaho SCORP indicates that overall recreation use in the ORA in 2015 will be 70% above 1995 use levels; placing increased demand on existing recreation facilities and warranting consideration of new sites and facilities.

Monitoring:
- Periodic (bi-weekly, weekly or monthly) patrols by maintenance staff to check facilities and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Maintain existing recreational facilities at three (3) recreation sites (See Map RECT-2D):
    - Rabbit Creek OHMV Trailhead.
    - Fossil Creek OHMV Trailhead.
    - North Fork Campground.

2. Upgrade, reconstruct and/or increase recreation facilities at seven (7) recreation sites (See Map RECT-2D):
    - Jump Creek Recreation Site.
    - Little Squaw Creek Recreation Site.
    - Silver City Campground.
    - Ruby Junction Recreation Site.
    - Trout Springs Hunter Camp.
    - Castlehead Springs Hunter Camp.
    - Garat Crossing Recreation Site.

3. Construct at least seven additional recreation sites:
    - Guffey Butte Addition - response to additional needs identified by Canyon and Owyhee Counties.
    - Owyhee Front equestrian trailheads - two sites.
    - Owyhee Uplands National Back Country Byway campgrounds - not to exceed two semi-developed sites.
    - North Fork Owyhee Backcountry trailheads - two semi-developed sites.

Other sites as may be appropriate.

4. Maintain undeveloped recreation sites throughout the Owyhee Resource Area to protect public health and safety.

5. Close and remove the Hemingway Butte OHV Trailhead recreation site and associated trails.

[redacted]

RECT 5: Develop a trail system that provides a range of motorized and non-motorized recreation opportunities for the public's enjoyment of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural settings.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for the recreational use of public lands as an integral part of multiple-use management. In accordance with this law, the BLM is committed to providing and maintaining a wide diversity of recreation opportunities on public lands, including opportunities to utilize developed trail systems. Idaho's SCORP identifies the role of federal agencies to develop dispersed facilities such as trails to meet existing and projected demand. There is increasing demand by user groups and local government entities to expand the trail system to accommodate a variety of trail opportunities.

Monitoring:
- Periodic patrols by maintenance staff to check trail facilities and recreational use. Patrols will be weekly, monthly or several times a year depending on trail location.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.
- Periodic (monthly) patrols of the road corridor to check signing and vehicle use, as well as roadway safety.

1. Establish planning corridors for the consideration of foot/equestrian trail systems to further public opportunities to safely enjoy recreational settings in the following areas:

    - North Fork Canyon SRMA - foot travel only; no bridge construction to occur.
    - North Fork Owyhee Backcountry SRMA - foot/equestrian travel; no bridge construction to occur. See Map RECT-4.
    - Owyhee Canyonlands SRMA - primitive portage trails around Owyhee Falls and Thread the Needle Rapid on the East Fork Owyhee River.
    - Snake River Birds of Prey SRMA (Guffey Butte Addition) -foot/equestrian trail around Guffey Butte in conjunction with the Canyon County Celebration Park site. See Map RECT-5.
    - Jump Creek SRMA - trails leading away from the Jump Creek Recreation Site into and above the canyon as resource damage warrants.
    - Owyhee Front SRMA - trails leading away from the equestrian trailheads on lands not affected by wild horse herd management areas.

2. Develop a mountain bike trail program throughout the ORA utilizing existing dirt roads and trails within the ORA.

3. Dedicate and protect the Owyhee Uplands National Back Country Byway's existing roaded natural opportunities. Provide for the upgrading of the Byway to ensure public safety and to enhance recreational opportunities associated with the corridor's roaded natural setting.

4. Modify existing motorized vehicle opportunities consistent with OHMV designations and subject to congressional wilderness designations. Place directional, landmark (stream names, etc.), informational (regulatory), and interpretive signing along roads and trails in, but not necessarily limited to, the following locations:

[redacted]

- **Owyhee Front area (ERMA/SRMA)**
- **Snake River Birds of Prey SRMA**
- **Silver City area (ERMA)**
- **Triangle Road (ERMA)**
- **Owyhee Canyonlands SRMA (including the Owyhee Uplands National Back Country Byway)**

5. Manage the Oregon National Historic Trail in accordance with the Oregon Trail Comprehensive Management and Use Plan (USDI-NPS, August, 1981) and Oregon Trail Management Plan (USDI-BLM,1984), or as may be amended.

RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Rationale: BLM is committed to enhancing recreational opportunities through land ownership adjustments, increased and improved access, and other acquisitions.

Monitoring:

- Monitoring of recreational use on affected non-federal properties.
- Monitoring for easement compliance.
- Periodic (bi-weekly) patrols by maintenance staff to check road conditions and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Pursue recreational easements that allow for motorized access.

2. Pursue the purchase (fee title) of properties which would enhance recreation opportunities.

3. Retain access roads into the North Fork Owyhee Backcountry SRMA as low-standard dirt surface routes to maintain semi-primitive motorized opportunities.

RECT 7: Retain at least 10% of the ORA in a primitive recreational opportunity (ROS) setting.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102 (8), declares as policy that "...the public lands be managed in a manner that will protect the quality of the scenic resources...that, where appropriate, will preserve and protect certain public lands in their natural condition." At present, only 13% of the ORA retains a primitive setting (Resource Opportunity Spectrum classification)

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Monitoring:

Periodic updating of recreation opportunity spectrum (ROS) inventory.
Application of ROS consideration through NEPA review.

1. Prohibit the construction of new rangeland (livestock, watershed, and wildlife) facilities within the primitive settings of the enlarged Owyhee Canyonlands SRMA which surrounds the Owyhee River system. See Map RECT-1.

[redacted]

Wilderness

WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Rationale: Section 603 of the Federal Land Policy and Management Act (FLPMA) requires that all public lands be inventoried for the presence of wilderness characteristics. Those found to have wilderness characteristics are identified as wilderness study areas (WSAs) and are to be managed for the protection of wilderness values until such time that Congress can act on wilderness suitability recommendations prepared for each WSA. The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992 for submission to the President and Congress. The wilderness study areas in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	50,865
ID-16-41	Big Willow Spring	6,210
ID-16-42	Squaw Creek Canyon	10,780
ID-111(16)-44	Upper Deep Creek	530
ID-16-45	Middle Fork Owyhee River	14,820
ID-16-47	West Fork Red Canyon	12,970
ID-16-48A (OR-3-194)	Lookout Butte	34,400
ID-16-48B (OR-3-195)	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	24,790
ID-16-49A	Owyhee River-Deep Creek	52,090
ID-16-49D	Yatahoney Creek	4,745
ID-16-52	Juniper Creek	5,855
ID-16-53 (NV-010-103A)	South Fork Owyhee River	44,955
Total		298,630

See Map WNES-1 and Table WNES-1 for additional information.

Monitoring:
- Implement generic monitoring standards as specified in the Boise District IMP Plan and the Owyhee IMP Implementation Plan.

1. Ensure that WSA lands and Section 202 study lands remain substantially natural in character, retain outstanding opportunities for solitude and/or primitive recreation experiences, and support supplemental wilderness values.

2. Within two years of the RMP decision, provide for public education of the wilderness values of the WSAs and future designated wilderness.

3. Manage all WSA and Section 202 study lands to be consistent with wilderness designation. In no case should management actions compromise the suitability of an area for future wilderness designation.

WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Rationale: The Federal Land Policy and Management Act recognizes wilderness as an integral part of the spectrum of multiple uses of public lands. Lands designated as wilderness are to be managed into perpetuity for the protection of wilderness and other multiple-use values in accordance with the Wilderness Act of 1964 and the BLM's Wilderness Management Policy (September 24, 1981). The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992. The President submitted these wilderness recommendations to Congress in September of 1992. The recommendations for wilderness in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	41,025
ID-16-48B	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	16,330
ID-16-49A	Owyhee River - Deep Creek	47,840
ID-16-49D	Yatahoney Creek	4,425
ID-16-52	Juniper Creek	5,785
ID-16-53	South Fork Owyhee River	44,955
Total		195,980

See Map WNES-1 and Table WNES-2 for additional information.

Monitoring:

- Monitoring needs are to be determined by specific wilderness management plans.

1. Manage designated wilderness so that natural ecological, geological, hydrological, biological and edaphic processes will operate freely. (Additional WSA and non-WSA lands may be recommended for congressional designation by environmental organizations outside of the BLM planning process.)

Visual Resources

VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102(8), declares as policy that public lands will be managed to "... protect the quality of the scenic values... that, where appropriate, will preserve and protect certain public lands in their natural condition." The National Environmental Policy Act (NEPA; P.L. 9-190), Section 101(b), requires federal agencies to "... assure for all Americans... esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "...utilize a systematic, interdisciplinary approach which will ensure the integrated use of ... Environmental Design Acts in the planning and decision making..." process. Guidelines for the identification of VRM classes on public lands is contained in BLM Manual Handbook 8410-1, Visual Resource Inventory. The establishment of VRM areas is based upon an evaluation of the landscapes' scenic qualities, public sensitivity toward certain areas (such as special recreation designations or wilderness), and the location of affected lands from major travel corridors (distance zoning).

Monitoring:

- In VRM Class I and Class II areas, on-site visual quality control inspections will occur at the time of project construction, reconstruction, and maintenance.
- In VRM Class III and IV areas, ongoing quality control inspections of ORA project work in general will be done, however, attendance at specific project sites during construction, reconstruction, and maintenance will not be required.

1. Classify and manage public lands under the following VRM classifications:

Class I areas:	310,566 acres
Class II areas:	662,164 acres
Class II-IMP areas:	0 acres
Class III areas:	347,261 acres
Class IV areas:	0 acres

See Map VISL-D.
See Appendix VISL-1 for classification objectives.

Cultural Resources

CULT 1: Protect known cultural resource values from loss until their significance is determined.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Cultural resource sites are deteriorating from the effects of vandalism and neglect.

Monitoring:

- Monitor three cultural resource sites per year to determine site condition and mitigation needs.

1. Eliminate the negative impacts to cultural resource sites known to be suffering the effects of agents of deterioration.

2. Develop management strategies to ensure preservation of cultural resource values within specific areas known to contain concentrations of unique or significant cultural resource sites.

CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

Rationale: The National Historic Preservation Act of 1966 provides for the protection of cultural resource values on land managed by federal agencies and identifies federal agency responsibilities to preserve prehistoric and historic cultural resources.

[redacted]

Monitoring:

- According to schedule outlined in the Oregon Trail Management Plan and the Birds of Prey Cultural Resource Management Plan.
- Make three site visits per year to ensure Silver City homeowner compliance with Owyhee County Historic Preservation Committee recommendations.

1. Protect the integrity of those portions of the eighty mile Oregon Trail and associated cultural resource sites on public land. See Map CULT-1.

2. Manage the existing Silver City, DeLamar and Guffey Butte/Black Butte Historic Districts in accordance with Section 110 of the National Historic Preservation Act of 1966. See Map CULT-1.

3. Manage the existing Guffey Butte/Black Butte Archaeological District ACEC to protect cultural resource values. See Table ACEC-D.

4. Designate Lambert Table, Rooster Comb Peak and Sinker Creek as ACECs and manage to protect cultural values. See Table ACEC-D.

5. Nominate sites/areas that qualify to the National Register of Historic Places and prepare Cultural Resource Management Plans for those sites.

CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Public participation in the preservation process is essential to prevent continued loss of cultural values.

Monitoring:

- Normal BLM accomplishment tracking process.

1. Participate in cooperation with State and other Federal agencies, private entities, and universities to conduct public outreach programs including "Archaeology Week" and other cultural resource related events.

2. Survey a minimum of 20 sites each year to determine site condition and provide data for developing management actions.

Hazardous Materials

HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. Minimize the human health threat and the risk to natural resources from hazardous materials contamination.

Rationale: The Secretary's waste management initiative commits the Bureau to reducing hazardous material situations on public lands. Federal agencies are required to comply with all federal and state laws, regulations and policies regarding hazardous materials on public lands. These include:

- Resource Conservation and Recovery Act (RCRA), As Amended 1976/1980 - 42 USC 6901f.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980 - 42 USC 9601f.
- Federal Water Pollution Control Act (Clean Water Act) 1987 - 33 USC 1251-1387.
- Clean Air Act, As Amended 1977/1990 - 42 USC 7418.
- Federal Land Policy and Management Act, As Amended 1976 - 43 USC 1701f.

Monitoring:

- Periodic review of NEPA documents.
- Field review of compliance.
- Yearly assessment of reported sites.
- Follow-up monitoring to be developed on a case-by-case basis.

1. Ensure hazardous material and potential hazardous material problems associated with BLM authorized land use actions are identified.

2. Increase law enforcement actions to reduce the amount of illegal disposal of hazardous wastes on public lands.

3. Implement remediation/removal actions for existing and newly identified hazardous waste sites in a timely and efficient manner.

4. Prohibit the following activities on public lands:
    - New public waste disposal sites
    - New or existing private waste disposal sites
    - Storage or disposal of hazardous waste
    - Dumping of fuel and other hazardous materials from airborne military aircraft above the ORA.

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[redacted]

Area of Critical Environmental Concern (ACEC)

ACEC 1: Retain existing and designate new Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and where special management is needed to protect the values identified.

Rationale: Section 202 (c)(3) of FLPMA mandates that priority be given to the designation and protection of areas of critical environmental concern. Further guidance and evaluation criteria are found at 43 CFR Part 1610.7-2.

Monitoring:

- Relevant and important values of each designated ACEC would be monitored on a regular schedule to evaluate the effectiveness of management in maintaining those values.

1. Designate the following as ACECs: See Map ACEC-D.
    - Guffey Butte/Black Butte Archaeological District 7,750 acres)
    - Owyhee River Bighorn Sheep Habitat Area (141,796 acres)
    - Boulder Creek Outstanding Natural Area (4,557 acres)
    - Cinnabar Mountain Research Natural Area (277 acres)
    - Coal Mine Basin Research Natural Area (1,604 acres)
    - Hells Creek Research Natural Area (260 acres)
    - Jump Creek Canyon (612 acres)
    - Juniper Creek Watershed (2,560 acres)
    - Juniper Mountain (83,431 83,418 acres)
    - Lambert Table (18,036 acres)
    - McBride Creek Research Natural Area (261 acres)
    - North Fork Juniper Woodland Outstanding Natural Area (9,107 acres)
    - Pleasant Valley Table Research Natural Area (1,467 acres)
    - Rooster Comb Peak 8,172 acres)
    - Sinker Creek (2,128 acres)
    - Squaw Creek Research Natural Area (150 acres)
    - The Badlands Research Natural Area (3,600 acres)
    - The Tules Research Natural Area (114 acres)
    - Upper Deep Creek (640 acres)

The total acreage of the nineteen designated areas is 265,016.

2. Manage designated ACECs with the special management actions identified in Table ACEC-D.

3. Complete exclosure fencing of ACECs within three years (Cinnabar Mountain, Hells Creek, Jump Creek Canyon, McBride Creek, Squaw Creek, and The Tules).

4. Nominate Rooster Comb Peak and any other eligible sites/areas that qualify to the National Register of Historic Places and prepare Cultural Resource Management Plans for those sites/areas.

[redacted]

ALTERNATIVE E
(Proposed Plan)

Air Resources

AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

Rationale: The Federal Clean Air Act and State of Idaho regulations require Federal agencies to meet or exceed air quality standards.

Monitoring:
- Review of prescribed burn plan, pre-burn and post-burn calculations of acreage and tonnage on site.
- Annual Work Plan (AWP) identification.
- Maintain accurate records of both acreage and tonnage burned to date.
- Periodic review of NEPA documentation.
- Field review of compliance with mitigating measures.

1. Limit prescribed burning in juniper/sagebrush/grassland areas to a maximum of 15,000 acres per year (or the equivalent of 100,000 tons of fuels) and average 7,500 acres of prescribed burns per year over the life of the plan. Projected emissions from individual burns will be calculated to assure compliance with National Ambient Air Quality Standards and Prevention of Significant Deterioration regulations.

2. Limit unnecessary emissions from existing and new point and nonpoint sources by requiring and implementing Standard Operating Procedures (SOPs) and Stipulations for reducing or controlling emissions.

Soil Resources

SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:
- Monitoring includes rangeland health assessments, collection of utilization, trend, climate, and ecological site inventory data by various methods. See Appendix MONT-1 for details concerning some of these procedures.
- Area specific monitoring may be conducted using various methods (e.g., 3-F erosion bridge).

[redacted]

1. Implement grazing practices that during and at the end of the grazing season provide adequate amounts of ground cover (determined on an ecological site basis) to support proper infiltration, maintain soil moisture, stabilize soils, and maintain site productivity.

2. Implement grazing practices that improve or maintain native rangeland species to attain composition, density, aerial cover and vigor appropriate to site potential.

3. Limit OHMV use in high erosion hazard watersheds, watersheds that are at-risk or in unsatisfactory condition.

4. Grazing systems and other activities will be designed to minimize soil erosion caused by surface disturbing activities through proper timing with regard to soil moisture content and range readiness.

5. Provide a minimum of two growing seasons rest from livestock grazing and other watershed disturbing activities following fires.

6. Implement a juniper abatement plan for appropriate sites on which juniper is invading.

SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

Rationale: The BLM must comply with the Federal Land Policy and Management Act, the Taylor Grazing Act, the Public Rangelands Improvement Act, the Clean Water Act, Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and other federal and state laws and regulations regarding watershed health/condition and water quality. Improving or maintaining watershed health/condition will benefit grazing, wildlife, recreation, fishery and water quality programs.

Monitoring:
- Regular inspections of mineral related activities to assure compliance with plan of operation and permit stipulations.
- Monitoring of streambanks as part of riparian habitat assessments.
- Monitoring of site specific OHMV activities for soil/sediment impacts.
- Periodic inspection of other surface disturbing activities to assure compliance with BMPs.

1. Improve or maintain streambank and channel stability as appropriate for the site by managing grazing to limit annual trampling impacts to 10% or less of the linear bank length.

2. Authorizations for site specific surface disturbing activities (e.g., road building, drill pad construction, utility lines) will be reviewed to assure that approved Best Management Practices (BMPs) are incorporated to reduce soil erosion and sediment yields to a minimum.

3. Limit surface disturbing activities on soils sensitive to compaction or that have a high soil erosion potential rating, or that are exhibiting existing accelerated erosion problems.

Water Resources

WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

Rationale: Federal government agencies are required to comply with all Federal, State, interstate and local requirements, administrative authority, and process and sanctions in respect to the control and abatement of water pollution. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. In pastures containing riparian areas categorized as unsatisfactory, non-functioning, or functional-at-risk, or stream segments listed as water quality limited in the current Idaho Division of Environmental Quality 303(d) list, implement grazing practices that make progress towards achieving proper functioning condition and satisfactory riparian condition. These grazing practices will, at a minimum, comply with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and BMPs and component practices approved in the Idaho Agricultural Pollution Abatement Plan or subsequent plans. See Table RIPN-1 and Map RIPN-4 for affected areas. Future inventory or monitoring may indicate additional pastures to which this management action will apply.

2. Improve or maintain herbaceous vegetation species to attain composition, density, canopy and ground cover, and vigor appropriate for the site. Adequate residual stubble height in an amount appropriate for the site, will be present throughout the grazing treatment and overwinter. This pertains to key sedge and rush species which are excellent streambank stabilizers.

3. Improve or maintain woody riparian vegetation species to attain composition, density, canopy and ground cover, structure, and vigor appropriate for the site. Woody riparian vegetation utilization levels will be established to promote species reflective of the site potential.

4. Improve or maintain streambank and channel stability as appropriate for the site by managing grazing to limit annual trampling impacts to 10% or less of the linear bank length.

5. Implement a juniper abatement plan for appropriate sites on which juniper is invading.

6. Implement management practices addressing non-grazing impacts to riparian areas where needed and appropriate.

7. Provide a minimum of two growing seasons rest from livestock grazing following fires.

[redacted]

WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

Rationale: The BLM is committed to acquiring state water rights to guarantee future water availability for all public land activities and protest all water right applications by private individuals which may interfere with Bureau water rights.

Monitoring:
- Annual review of new project files and minimum instream flows recommended.

1. Obtain water rights for all water development projects.

2. Recommend, where appropriate, establishment of minimum instream flows for perennial streams managed by the BLM.

Vegetation

VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities.

Monitoring:
- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods. See Appendix MONT-1 for details concerning procedures.

1. Implement grazing practices that during and at the end of the grazing season provide adequate amounts of ground cover (determined on an ecological site basis) to support proper infiltration, maintain soil moisture, stabilize soils, and maintain site productivity.

2. Implement grazing practices that improve or maintain native rangeland species to attain composition, density, foliar cover and vigor appropriate to site potential.

3. Implement prescribed burning practices in areas where it is determined that burning would improve rangeland health and increase native plant biodiversity in western juniper and big sagebrush vegetation types. Mechanical and chemical methods may also be used.

4. Provide a minimum of two growing seasons rest from livestock grazing and other watershed disturbing activities following prescribed or wild fire.

[redacted]

5. In pastures containing riparian areas categorized as unsatisfactory, non-functioning or functional-at risk, implement grazing practices that make progress towards achieving proper functioning condition and satisfactory riparian condition. These grazing practices will, at a minimum, comply with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (see CFR 4180) and BMPs and component grazing practices approved in the Idaho Agricultural Pollution Abatement Plan or subsequent plans. See Table RIPN-1 and Map RIPN-4 for affected areas. Future inventory or monitoring may indicate additional pastures to which this management action will apply.

6. Apply approved noxious weed control methods. (Includes burning, mechanical, manual, biological, and chemical control methods as identified in the Vegetation Management EIS (USDI, BLM, 1991).)

7. Implement grazing practices designed to meet Idaho Standards for Rangeland Health and conform to the Guidelines for Livestock Grazing Management (See Appendix LVST-2.).

Riparian-Wetland Areas

RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs the BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and/or conserved to minimize the need for listing as Threatened or Endangered. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters. Water quality is directly related to the health of riparian ecosystems.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, and water quality data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. In pastures containing riparian areas categorized as unsatisfactory, non-functioning, or functional-at-risk, implement grazing practices that progress towards achieving proper functioning and satisfactory riparian condition. These grazing practices will, at a minimum, comply with the idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and BMPs and component practices approved in the Idaho Agricultural Pollution Abatement Plan or subsequent plans. See Table RIPN-1 and Map RIPN-4 for affected areas. Future inventory or monitoring may indicate additional pastures to which this management action will apply.

2. Improve or maintain herbaceous vegetation species to attain composition, density, canopy and ground cover, and vigor appropriate for the site. Adequate residual stubble height, in an amount appropriate for the site, will be present throughout the grazing treatment and overwinter. This pertains to those key sedge and rush forage species which are excellent streambank stabilizers.

3. Improve or maintain woody riparian vegetation species to attain composition, density, canopy and ground cover, structure, and vigor appropriate for the site. Woody riparian vegetation utilization levels will be established to promote species reflective of the site potential.

4. Improve or maintain streambank and channel stability as appropriate for the site by managing grazing to limit annual trampling impacts to 10% or less of the linear bank length.

5. Implement a juniper abatement plan for appropriate sites on which juniper is invading.

6. Implement management practices addressing non-grazing impacts to riparian areas where needed and appropriate.

7. Provide a minimum of two growing seasons rest from livestock grazing following fires.

Forest Management

FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Rationale: The Federal Land Policy Management Act 1976 - Section 102(a)(8) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Douglas-fir communities are present on less than 3% of the public lands in the Owyhee Resource Area. Their retention is critical to overall ecological balance, particularly in light of harvesting activities on intermingled State and private lands.

Monitoring:

- Monitoring includes examination for tree pests such as the Douglas-fir tussock moth and site inspections to insure no unauthorized tree removals occur.

1. Classify all Douglas-fir forest lands (36,200 acres) as being unavailable for the management of forest products. Forest stands will be retained for biodiversity. Trees will only be cut in response to forest health and safety concerns.

FORS 2: Use juniper harvesting to help achieve a desired plant community.

Rationale: The Federal Land Policy Management Act 1976 - Section 201(a) mandates that public lands be managed in a manner that will protect the quality of ecological resources. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. Juniper harvesting is one of several methods available to control seral juniper encroachment into sagebrush-grassland ecological sites and manage the ecological balance of natural plant communities.

[redacted]

Monitoring:

- Monitoring includes site inspections to insure compliance with the standard woodcutting stipulations such as stumpage height, layout perimeter, slash dispersal and cutting of unauthorized vegetation such as aspen or mountain mahogany.
- Monitoring also includes collection of data concerning the impacts of the woodcut on the understory vegetation. See Appendix MONT-1 for details concerning procedures for vegetation monitoring.

1. Manage harvest of western juniper woodlands in accordance with layout and cutting standards in the Owyhee Juniper Woodland Harvest Management Plan (USDI, BLM, October 1987). See Table VEGE-4 and Maps FORS-1 and FORS-2.

Wildlife Habitat

WDLF 1: Maintain or enhance the condition, abundance structural stage and distribution of plant communities and special habitat features required to support a high diversity and desired populations of wildlife.

Rationale: Section 102.8 of The Federal Land Policy and Management Act states that it is policy of the United States that public lands be managed in a manner that will protect the quality of multiple resources and will provide food and habitat for fish and wildlife and domestic animals. The Public Rangelands Improvement Act (PRIA) directs improvement of rangeland conditions and provides for rangeland improvements including providing habitat for wildlife. The Memorandum of Understanding between the BLM and IDF&G states that the two agencies will work for the common purpose of maintaining, improving and managing wildlife resources on public lands.

Monitoring:

- Monitoring includes collection of utilization, trend, climate, rangeland health assessment, and other data to assess vegetation characteristics as they apply to wildlife species and wildlife habitat objectives.
- Additional monitoring includes use of appropriate techniques such as pellet group counts or breeding bird transects, lek counts, etc. which are applicable to specific types of wildlife. See Appendix MONT-1 for details concerning procedures for various methods.
- Periodically inspect/monitor authorized BLM activities including, but not limited to, range improvement projects, ROWs, OHMV use areas and woodcuts to insure compliance with wildlife stipulations and document observed habitat and animal disturbance. Refer to Table WDLF-1 for a list and estimated acreages of plant communities and special habitats and Table WDLF-2 for estimated acreages and key habitats of major game species.

1. Ensure that all activity plans include objectives for maintaining or enhancing habitat for those wildlife species known or likely to occur within the planning area.

2. Limit the adverse impacts of various land use activities, management actions and land tenure adjustments to wildlife populations and habitats through implementation of management actions identified in objectives FORS 2, WHRS 1, LVST 1, FIRE 1-4, LAND 1-6, LOCM 1, FLUM 1, MMAT 1, RECT 1 and HAZM 1.

3. Protect and enhance habitat for a diversity of wildlife through implementation of management actions identified in objectives SOIL 1 and 2, WATR 1 and 2, VEGE 1, RIPN 1, FORS 1 and 2, FISH 1 and 2, RECT 3, WNES 1 and 2, HAZM 1 and ACEC 1.

4. Adjust overall grazing management practices to insure that adequate upland forage and cover remains to accommodate the needs of wildlife. Specifically:

- limit utilization of key browse species, as measured in the fall, to a maximum of 30% within all deer winter habitat and 50% within all other habitats.
- limit utilization of key upland herbaceous forage species to a maximum of 50% at the time of livestock removal from a pasture.

More restrictive utilization standards may be imposed where necessary to accomplish specific wildlife or other resource objectives.

5. Design and implement vegetation treatments to improve habitat where juniper or shrub density is contributing to unsatisfactory habitat conditions. All treatments will be designed to protect scarce, unique and highly productive wildlife habitat types, retain large interconnected blocks of more common habitat types (See Table WDLF-1) and accommodate specific wildlife habitat requirements including migration corridors for big game (See Appendix FIRE-1). Reseed burns with a variety of shrubs, forbs and grasses. Rest all burns and seedings from livestock grazing for a minimum of two growing seasons following treatment.

6. Ensure water availability for wildlife by providing unrestricted access to all livestock waters, requiring that where necessary, waters are left on following removal of livestock and constructing additional water developments where water is determined to be limiting. Ensure that water is available at intervals of no more than three miles apart in big game habitat.

7. Retain all public land within crucial and other high quality wildlife habitats unless exchanging for land of equal or higher value and acquire additional high quality habitat through purchase or exchange with willing landowners. These include but are not limited to wetland/riparian habitats, crucial big game winter habitat and isolated tracts and shrublands adjacent to agricultural areas that provide important cover for upland game. Isolated tracts will be grazed only if needed to maintain or improve wildlife habitat.

8. Minimize barriers to big game movement by constructing new fences and modifying existing fences to meet or exceed Boise District Fence Policy standards for the species present.

9. Protect and enhance habitat for wildlife at all developed springs and selected undeveloped springs, wet meadows, reservoirs and stream riparian reaches by fencing to exclude livestock. Close all exclosures to livestock grazing for the life of this plan except where it is determined that controlled grazing is necessary to achieve a specific resource objective.

10. Where feasible, enhance waterfowl nesting habitat by ensuring waterfowl benefits are incorporated into reservoirs with the potential to support nesting waterfowl. Enhancement may include fencing, construction of nesting islands and/or other structures and planting food and cover species.

11. Develop cooperative wildlife habitat/farming development (Sikes Act) agreements designed to enhance habitat for upland game and other wildlife.

12. Protect raptor nests and manage adjacent vegetation to ensure adequate habitat for prey species. Authorize no human caused disturbance within a 0.5 mile radius of any known golden eagle nest between February 1 and June 30 and other species' nests between March 15 and June 30. Disturbance is defined as any activity which could result in frequent flushing of adults or young, nest abandonment or significant loss of prey base.

13. Ensure that all power poles on public land are designed to prevent raptor electrocution.

14. Ensure that management to maintain or improve habitat for raptors and their prey species receives priority consideration within the Snake River Birds of Prey National Conservation Area as detailed in the SRBOPNCA Management Plan.

15. Install gates at entrances to caves and abandoned mine shafts where disturbance to bat populations is determined to be a problem.

Fishery Habitat

FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations waters.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. In pastures containing riparian areas categorized as unsatisfactory, non-functioning, or functional-at-risk, implement grazing practices that make progress towards achieving proper functioning condition and satisfactory riparian condition. These grazing practices will, at a minimum, comply with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and BMPs and component practices approved in the Idaho Agricultural Pollution Abatement Plan or subsequent plans. See Table RIPN-1 and Map RIPN-4 for affected areas. Future inventory or monitoring may indicate additional pastures to which this management action will apply.

2. Improve or maintain herbaceous vegetation species to attain composition, density, canopy and ground cover, and vigor appropriate for the site. Adequate residual stubble height in an amount appropriate for the site, will be present throughout the grazing treatment and overwinter. This pertains to those key sedge and rush forage species which are excellent streambank stabilizers.

3. Improve or maintain woody riparian vegetation species to attain composition, density, canopy and ground cover, structure, and vigor appropriate for the site. Woody riparian vegetation utilization levels will be established to promote species reflective of the site potential.

4. Improve or maintain streambank and channel stability appropriate for the site by managing grazing to limit annual trampling impacts to 10% or less of linear bank length.

5. Implement a juniper abatement plan for appropriate sites on which juniper is invading.

6. Implement management practices addressing non-grazing impacts to riparian areas where needed and appropriate.

7. Provide a minimum of two growing seasons rest from livestock grazing following fires.

FISH 2: Improve reservoir fisheries, when appropriate, in consultation with State agencies and adjacent landowners.

Rationale: BLM Wildlife and Fisheries Management Manual Section 6500 directs BLM to maintain the continued effectiveness of habitat improvements and to maintain and enhance important resident fisheries resources. BLM Manual Section 6840 directs BLM to ensure that the crucial habitats of sensitive animals will be managed and conserved to minimize the need for listing as threatened or endangered under the Endangered Species Act. The Federal Water Pollution Control Act (Clean Water Act) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the nations water at a level of quality which provides protection for fish and wildlife.

Monitoring:

- Monitoring includes collection of rangeland health assessment, utilization, trend, climate, water quality and fish habitat data by various methods. See Appendix MONT-1 and Appendix WATR-2 for details concerning procedures.

1. In pastures containing wetland areas categorized as unsatisfactory, non-functioning, or functional-at-risk, implement grazing practices that make progress towards achieving proper functioning condition and satisfactory riparian condition. These grazing practices will, at a minimum, comply with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and BMPs and component practices approved in the Idaho Agricultural Pollution Abatement Plan or subsequent plans. See Table RIPN-1 and Map RIPN-4 for affected areas. Future inventory or monitoring may indicate additional pastures to which this management action will apply.

2. Improve or maintain herbaceous vegetation species to attain composition, density, canopy and ground cover, and vigor appropriate for the site. Adequate residual stubble height in an amount appropriate for the site, will be present throughout the grazing treatment and overwinter. This pertains to those key sedge and rush forage species.

3. Improve or maintain woody riparian vegetation species to attain composition, density, canopy and ground cover, structure, and vigor appropriate for the site. Woody riparian vegetation utilization levels will be established to promote species reflective of the site potential.

4. Improve or maintain shoreline and soil surface stability appropriate for the site by managing grazing to limit annual trampling impacts to 10% or less of the linear shoreline length.

5. Implement a juniper abatement plan for appropriate sites on which juniper is invading.

6. Implement management practices addressing non-grazing impacts to riparian areas where needed and appropriate.

7. Provide a minimum of two growing seasons rest from livestock grazing following fires.

Special Status Species

SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended. See Tables SPSS-1 and SPSS-2.

Rationale: Protection and recovery of federally listed threatened and endangered species is mandated under the Endangered Species Act of 1973, as amended. BLM Manual 6840 also directs that BLM shall carry out management activities consistent with the principles of multiple-use while conserving proposed, candidate, BLM sensitive and State species of special concern and their habitat. It also directs BLM to ensure that any activities authorized, funded or carried out do not contribute to the need to federally list any species as threatened or endangered.

Monitoring:
- Conduct population or habitat monitoring on a regular basis for selected special status species of plants and animals.
- Monitor key populations and habitats or population/habitat objectives as identified in AMPs or other activity plans.
- Appropriate monitoring techniques for special status species may be identified in the wildlife section of Appendix MONT-1 or additional techniques may be required or utilized.

1. Prepare, revise, and implement Habitat Management Plans (HMPs) and other resource activity plans and cooperate in the development and implementation of Recovery Plans, Conservation Agreements and Strategies and species management plans to ensure that objectives for special status plant and animal species are incorporated and met.

2. Limit the adverse impacts of various land use activities, management actions and land tenure adjustments to special status plant and animal species populations and habitats through implementation of management actions identified in objectives FORS 2, WHRS 1, LVST 1, FIRE 1-4, LAND 1-6, LOCM 1, FLUM 1, MMAT 1, RECT 1 and HAZM 1. To limit adverse impacts, fencing of populations and their habitats will occasionally be required.

3. Protect and enhance habitat for a diversity of special status species through implementation of management actions identified in objectives SOIL 1 and 2, WATR 1 and 2, VEGE 1, RIPN 1, FORS 1 and 2, WDLF 3 and 4, FISH 1 and 2, RECT 3, WNES 1 and 2, HAZM 1 and ACEC 1.

4. Acquire additional high quality habitat for special status species through purchase or exchange with willing landowners.

5. Protect bald eagle winter habitat and populations through implementation of the Snake River Birds of Prey National Conservation Area Management Plan and restricting activities that would result in disturbance to wintering eagles or adversely impact roost trees, prey species or other habitat components.

6. Enhance bald eagle winter habitat by planting additional roost trees where natural regeneration of suitable tree species is lacking.

7. Construct artificial nesting structures for ferruginous hawks and other special status species in areas where suitable nesting sites are determined to be limiting.

8. Maintain suitable grassland nesting habitat for long-billed curlew.

9. Identify, protect and enhance key sage grouse habitats and populations. Guidance for enhancement and protection is addressed in the Memorandum of Agreement in the 1997 Idaho Sage Grouse Management Plan (March 1998). Subsequent guidance may become available through development of plans by Local Sage Grouse Working Groups or similar efforts.

10. Protect and enhance key Columbia spotted frog habitats and populations by implementing conservation actions identified in the Conservation Strategy for the Columbia Spotted Frog (*Rana luteiventris)* in Idaho, pending its completion.

11. Limit recreational disturbance to bighorn sheep and other species associated with canyon and wetland/riparian habitats by not exceeding the interim carrying capacity objectives identified in the Owyhee River Recreation Management Plan.

12. Protect and enhance California bighorn sheep habitat and populations within the boundaries of Owyhee River Bighorn Sheep Habitat Area ACEC through continued implementation of the ACEC Management Plan.

13. Reduce the potential for disease transmission between domestic sheep and goats to California bighorn sheep by strict adherence to the 1998 Revised Guidelines for Domestic Sheep and Goat Management in Native Wild Sheep Habitats (BLM 1998) and all subsequent revisions.

14. Facilitate the reintroduction, expansion or supplemental transplant of special status species into suitable habitats where this is determined to be important to the recovery or management of a species or population.

Wild Horse Management

WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

Rationale: The Wild and Free-Roaming Horse and Burro Act of 1971 (PL 92-195) requires the BLM to manage wild free-roaming horses and burros under multiple-use in a manner that is designed to achieve a thriving natural ecological balance on public lands.

Monitoring:

- Monitoring of the vegetation includes collection of rangeland health assessment, actual use, utilization, trend, climate, and ecological site inventory data by various methods.
- Wild horse monitoring also includes collection of data concerning population characteristics. See Appendix MONT-1 for details concerning procedures.

1. Manage wild horses for the appropriate management level (AML) in the Hardtrigger, Black Mountain and Sands Basin Herd Management Areas (HMAs). See Map WHRS-E and Table WHRS-1E for allotment specific details.

HMA	AML	Population Range
Hardtrigger	98	66 - 130
Black Mountain	45	30 - 60
Sands Basin	49	33 - 64
Total	192	129 - 254

2. Allocate forage for wild horses at the AML. See Table WHRS-2E for HMA specific details. AML may be adjusted and the forage allocation will correspond as determined by rangeland monitoring to ensure a thriving natural ecological balance.

HMA	Forage Allocation (AUMs)
Hardtrigger	1,176
Black Mountain	540
Sands Basin	588
Total	2,304

3. Protect wild free-roaming horses from illegal capture, branding, harassment, or death.

4. Manage wild free-roaming horses as a component of the public lands in a manner that maintains or improves the rangeland ecosystem.

[redacted]

5. Retain inactive status on a portion of the Hardtrigger Herd Area. See Map WHRS-E and Table WHRS-1E for details.

6. Manage for recreational opportunities and experiences within the HMAs through coordination with affected parties and route designation, while protecting wild and free-roaming horses and their habitat.

7. Subject to multiple use management objectives, upgrade, modify, or remove rangeland developments that adversely impact distribution or free-roaming behavior of wild horses within HMAs.

8. Design new rangeland developments to minimize adverse impacts on wild horses.

Livestock Grazing Management

LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

Rationale: The Taylor Grazing Act directs stabilization of the livestock industry dependent upon public lands. It also directs that action be taken to stop injury to public grazing lands and provide for orderly use. The Federal Land Policy Management Act 1976 - Section 201(1)mandates that public lands be managed in a manner that will protect the quality of the ecological resources. The Public Rangelands Improvement Act of 1978 directs that the condition of the public rangelands be improved so that they become as productive as feasible for wildlife habitat and other rangeland values. The BLM is committed to maintaining and enhancing vegetation in terms of diversity and abundance of species and diversity of plant communities. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management are to be used as management goals and management techniques for the betterment of the environment, protection of cultural resources, and sustained productivity of the range.

Monitoring:
- Monitoring includes collection of ecological site inventory, rangeland health assessment, utilization, trend, actual use, climate, and other data by various methods.
- Monitoring also includes use supervision and compliance checks. See Appendix MONT-1 for details concerning procedures.

1. Allocate 135,116 AUMs for livestock, 2,304 AUMs for wild horses, and 2,673 AUMs for wildlife as shown in Table LVST-E and Appendix LVST-1. This is the current active grazing preference for livestock in the Owyhee Resource Area. In order to meet resource objectives, the forage allocation would be adjusted based upon monitoring and assessment. Evaluation of monitoring data will determine future stocking levels. Stocking levels necessary to meet objectives are projected to be approximately 112,649 AUMs in 5 years and approximately 105,899 AUMs in 20 years. The average actual grazing use has been 96,676 AUMs from 1988-1997.

[redacted]

2. Prioritize allotments from their current management classifications of intensive management, less intensive management, and management in association with private lands (Table LVST-1) to an allotment categorization based upon resource conditions, resource potentials, resource concerns, economics, present management and other criteria. These criteria are used to place the allotments into three categories; improve (I), maintain (M), and custodial (C). Due to the large number of allotments categorized as improve, the improve category allotments are further prioritized as High, Medium and Low. See Table LVST-E and Map LVST-2.

3. Develop and implement grazing systems to meet multiple use resource objectives and/or the Standards for Rangeland Health (see 43 CFR subpart 4180 and Appendix LVST-2) as follows: within 5 years on all I category high priority allotments; within 8 years on all I category medium priority allotments; and within 10 years on all other allotments. See Table LVST-E and Map LVST-2. In those allotments not meeting multiple use resource management objectives and lacking an approved and implemented grazing system by the above listed time frames, livestock grazing use will be authorized under the following stipulations:

- Riparian vegetation found along those stream segments currently listed in Table RIPN-1, will retain a 6-inch minimum stubble height on riparian herbaceous vegetation at the end of the grazing period. The incidence of use on woody vegetation (willow, alder, etc.) will not exceed 25% on those plants generally less than 3 feet in height in any given year. See Table RIPN-1 and Map RIPN-4 for affected areas. Future inventory or monitoring may identify additional stream segments to which these management actions will apply.
- On upland range sites grazed in excess of 50% utilization as determined by the key forage plant utilization class method, livestock grazing will be adjusted to ensure grazing does not cause an unacceptable level or pattern of utilization.
- On salt desert shrub range sites below 3500' in elevation, livestock grazing will be adjusted so that grazing will not occur during the critical growing season more often than one in three years. When these sites are grazed during the critical growing season, utilization will not exceed the light utilization class as determined by the key forage plant method.

4. Limit upland forage utilization by livestock on key upland herbaceous forage species to 50 percent unless a higher or lower level of use is appropriate to meet standards for healthy rangelands. Examples include heavier use levels of crested wheatgrass when grazed other than during the critical growth stage or light use (31-40 percent) on Idaho fescue, Thurber's needlegrass, bluebunch wheatgrass or other key forage species when grazed during the critical growth stage every or nearly every year.

5. In pastures containing riparian areas categorized as unsatisfactory, nonfunctioning or functional-at-risk, implement grazing practices that make progress towards achieving proper functioning condition and satisfactory riparian condition. These grazing practices will, at a minimum, comply with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (see CFR 4180) and BMPs and component grazing practices approved in the Idaho Agricultural Pollution Abatement Plan or subsequent plans. Future inventory or monitoring may indicate additional pastures to which this management action will apply. See Map RIPN-4.

6. Use a minimal level of rangeland developments (e.g., fences, water facilities) to adjust livestock grazing practices to achieve multiple use resource objectives and meet standards for rangeland health.

7. Prescribed burning practices will be used in areas where it is determined that burning would improve rangeland health and increase biodiversity in big sagebrush and western juniper vegetation communities. Livestock grazing will be adjusted to ensure successful prescribed burns. Areas prescribed to be burned may require rest prior to burning and will require rest after burning for a minimum of 2 growing seasons. Mechanical and chemical methods may also be used but in very limited areas where burning is not an option due to limited fuels or safety.

8. Exclude livestock grazing from 22,227 acres. Areas excluded from grazing are shown on Map LVST-E.

9. Conversion in class of livestock from cattle or horses to domestic sheep will be prohibited in the following locations: all areas south of the road known as the Mud Flat Road south to the border with the State of Nevada; within nine miles of the Castle Creek bighorn sheep herd; and within nine miles of the Reynolds Creek bighorn sheep herd. See Map WDLF-2 for current approximate locations of the Castle Creek and Reynolds Creek herds.

10. Applications from livestock permittees for non-use for conservation and protection purposes will be an acceptable practice and may be granted by the authorized officer where it is determined that such action will aid in meeting the standards for rangeland health.

11. Applications for use in excess of permitted use for temporary nonrenewable grazing use will be an acceptable practice and may be granted by the authorized officer where it is determined that such action will aid in meeting the standards for rangeland health.

12. Allotment boundaries may be adjusted or allotments may be combined to facilitate administration and/or meet resource objectives.

13. If the opportunity presents itself as a result of grazing preference being either relinquished or lost for any reason then the available carrying capacity may be utilized to resolve grazing issues anywhere within the resource area. Livestock could be transferred either temporarily or permanently in order to meet resource objectives.

Fire Management

FIRE 1: Suppress wildfires by taking appropriate management response utilizing the range of acceptable acreage limits listed for each fire management zone (FMZ) within the resource area. The current Fire Management Plan (FMP) is reviewed periodically and may be revised in conformance with RMP. See Map FIRE-1.

FMZ 1.3: (BOP West) less than 200 acres at least 90% of the time (annual grasses).
FMZ 2.7: (Jordan Valley) less than 500 acres at least 90% of the time (perennial grasses; the west side of the Owyhee Resource Area, south to Jordan Valley).
FMZ 2.8: (Salt Desert) less than 200 acres at least 90% of the time (perennial grasses; the foothills north to near the Snake River).
FMZ 3.1: (South Mountain) less than 1,000 acres at least 90% of the time (woodlands; south of Triangle - Jordan Valley road).

FMZ 3.2: (Silver City) less than 500 acres at least 90% of the time (woodlands; north of the Triangle - Jordan Valley road).

FMZ 3.3: (Wilderness Study Areas) less than 1,000 acres at least 90% of the time (all WSA's within the Owyhee Resource Area).

FMZ 4.1: (Canyonlands) less than 500 acres at least 75% of the time.

Rationale: The BLM feels that wildfires must have appropriate action taken, using the Fire Management Plan (FMP) and the identified value-at-risk. FMP objectives and value-at-risk are predetermined. Wildfires are evaluated for resource damage, suppression cost plus "net resource value change", and management objectives.

Monitoring:
- Fire occurrence reports, annually, with percentage of wildfires for each FMZ.
- Fire occurrence reports and individual Fire Report for each wildfire annually.
- Annually review fire occurrence report, with the LSRD FMP.

1. Provide appropriate management response, considering resource values, fire-fighter safety, costs, allowing natural fire to burn to meet resource objectives, in closely monitored opportunities, on all natural and human caused fires to meet suppression standards established. When prescriptive criteria are developed fires may be managed to meet resource objectives.

FIRE 2: Decrease soil erosion and sediment yield, restore forage values, and restore upland habitat values and riparian values using fire rehabilitation procedures following a wildfire.

Rationale: The Emergency Fire Rehabilitation (EFR) program calls to mitigate in the most cost-effective and expeditious manner possible, the adverse effects of fire on the vegetation-soil complex, the loss of water control and deterioration of water quality, and the detrimental alteration of crucial wildlife habitats.

Monitoring:
- BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidance for planning monitoring studies associated with emergency rehabilitation treatments.
- At least three growing seasons after treatments are needed for monitoring and evaluations. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Waterbar and seed all firelines constructed on slopes of 25% or more to prevent erosion.

2. Backfill and reseed all firelines constructed by heavy equipment.

3. Apply rehabilitation seed mixtures to meet watershed, wildlife and riparian objectives.

4. Rest all rehabilitated areas, with the exception of firelines, from livestock grazing for at least two growing seasons.

5. Use rehabilitation techniques in WSAs that are least damaging to wilderness resources, following the guidelines of the Boise District Wilderness Interim Management Plan, updated 1987, and including:

- Use staggered or irregular seedings in WSAs to blend with the landscape.
- Hand or aerial native seed species to restore natural vegetation.
- Conduct water shed reclamation work to prevent soil erosion and to avoid wilderness values.

FIRE 3: Restore natural disturbance regime to improve rangeland health and the biodiversity of native plant communities, using the example for a Prescribed Fire Activity Plan, and the example for a Wilderness Fire Activity Plan.

Rationale: Western juniper distribution in the Owyhee Mountains has nearly doubled since 1860. This expansion continues into areas not previously thought to be dominated by juniper such as into sites dominated by deep loamy soils. The increased density of western juniper has and continues to eliminate desirable understory vegetation. Also, there are areas with continual fuels of big sagebrush and western juniper that when ignited under the right conditions, will result in large catastrophic fires resulting in significant loss of wildlife and watershed values. Fire needs to be managed within these areas. Fire should be introduced at times where there is a better likelihood of control and the size of the burn acreage can be limited.

Monitoring:

- Annually review fire occurrences report, with the LSRD FMP. BLM Technical Reference 4400-1, Planning for Monitoring, April 1984, contains applicable guidelines for planning monitoring studies. See Appendix MONT-1 for various upland vegetation monitoring methods.

1. Use natural and prescribed fire in big sagebrush and western juniper dominated vegetation communities to burn approximately 105,000 acres. No more that 15,000 acres would be prescribed burned in any given year. The target or goal would be 7,500 acres per year.

FIRE 4: Ensure that BLM controlled management actions do not exceed the National Ambient Air Quality Standards by airshed as established in the Clean Air Act and administered by guidelines in the State Implementation Plan (SIP), when in place, and the EPA's "Prescribed Burning Background Document and Technical Information Document for Prescribed Burning Best Available Control Measures" or EPA's Smoke Management BMP.

Rationale: Smoke management is one element (both prevention of significant deterioration (PSD) and total suspended particulates (TSP)) of several elements in the National Ambient Air Quality Standards, established in the Clean Air Act (1967) and amendments to the Act (1972,1977).

Monitoring:

- Smoke management monitoring will occur under the requirements and guidelines for air quality and smoke management being developed by the State of Idaho.

1. Manage smoke from prescribed fire through techniques of avoidance, dilution and emission reduction with the use of EPA's Smoke Management BMP.

[redacted]

FIRE 5: Modify standard suppression techniques to protect sensitive resource values.

Rationale: ACECs, WSAs and other sensitive areas contain important resource values. Some resource values could be damaged or destroyed by fire or fire suppression techniques, such as destroying an historical structure in the Silver City area or using a bulldozer to blade over the Oregon Trail. Standard suppression techniques need to be modified to protect these sensitive resource values.

Monitoring:
- Annual fire occurrence reports.

1. Restrict the use of heavy equipment in fireline construction in WSAs, some ACECs, riparian habitat areas, the Silver City and DeLamar Historic Districts and the Oregon Trail National Historic Trail. See Appendices FIRE-1, FIRE-2, FIRE-3 and FIRE-4 and Table ACEC-E.

2. Use any and all available fire suppression techniques to protect the Silver City area, cultural ACECs and unique wildlife habitat areas.

Lands

LAND 1: Acquire through exchange, purchase, easement or donation and maintain those lands which have high resource values and to improve the management and administration of the public lands. Lands with high resource values will be retained in federal ownership which provides for efficient and effective management and administration.

Rationale: Section 102 of FLPMA makes it the policy of the United States that the public lands be retained in Federal ownership. Sections 205 and 206 of FLPMA provide mechanisms for consolidating land ownership patterns through acquisitions and exchanges. Consolidated ownership patterns would provide for better land management and administration for both public and non-public landowners. Retention and acquisition of lands in public ownership containing significant resource values would provide for long-term protection and management of those values. Disposal of isolated, unmanageable tracts would provide more efficient use of lands better suited in non-public ownership and concentrate management efforts in significant blocks of public lands.

Monitoring:
- Established Annual Work Plan (AWP) reporting procedures.
- Review access needs on a regular and periodic basis.
- Normal BLM accomplishment tracking process.
- Apply existing resource monitoring procedures on adjacent or comparable lands to newly acquired lands.

1. Acquire through purchase, exchange, easement or donation lands that will benefit the management of resource programs including but not limited to wild horses, wildlife, WSA's, ACEC's, riparian, cultural, recreation, etc.

2. Manage newly acquired lands for the highest potential purpose for which they were acquired. Manage acquired lands with unique or fragile resources to protect those resources. Manage acquired lands without special values or management goals in the same manner as comparable or adjacent public lands.

LAND 2: Make available for disposal approximately 325,000 acres of public land by sale, exchange, or Recreation & Public Purposes Act during the life of the plan. Retain in federal ownership those lands not identified for disposal.

Rationale: FLPMA 203, 206, 212. Disposal of those lands that are difficult and uneconomic to manage or that would serve important public objectives including community expansion and economic development which cannot be achieved prudently or feasibly on land other than public land.

Monitoring:
- Normal BLM accomplishment tracking processes.

1. Consolidate public lands by land tenure adjustment to acquire lands having higher public values and disposing of lands having lower public values by the various authorities available. See Table LAND-1 and Map LAND-3E.

Zone 1. Retain lands in public ownership in Zone 1. Lands in Zone 1 have high resource values including but not limited to; Wilderness Study Areas, Wild and Scenic Rivers, ACEC's, Wild Horse Herd Management Areas, crucial wildlife habitat or recreational values. Land in this zone will be considered for R&PP actions on a site-by-site specific basis.

Zone 2. Retain lands in public ownership in Zone 2 except for voluntary exchanges to resolve land use conflicts within this zone. Zone 2 coincides with the Snake River Birds of Prey National Conservation Area boundary. Public Law 103-64, passed by Congress and signed into law August 4, 1993, established the Snake River Birds of Prey National Conservation Area. This law withdrew all Federal lands within the conservation area from all forms of entry, appropriation, application, selection and disposal except for voluntary land exchanges which would resolve ownership related land use conflicts within the conservation area. Disposals may be conducted when such action will either benefit or have no adverse effect on raptors raptor prey or their habitat.

Zone 3. Make lands in Zone 3 available for all forms of disposal except FLPMA sale, Desert Land Act or Carey Act. Lands in Zone 3 do not meet the sale criteria under FLPMA Section 203 and 43 CFR 2710.0-3(a)(3).

Using current existing laws and regulations, and procedures, detailed analysis will be conducted on a case by case basis before decisions are made to dispose of Zone 3 lands from public ownership.

Zone 4. Make lands available for disposal in Zone 4. Lands designated for disposal that meet the sale criteria under Section 203 of FLPMA, 43 CFR 2710.0-3(a)(3), and other management objectives are designated as Zone 4. These lands meet the criteria for disposal by sale, but may also be disposed of by any other authority available to BLM for transfer of title out of public ownership, except the Desert Land Act and the Carey Act. See Table LAND-1 and Map-LAND-3E.

205

Using current existing laws and regulations, and procedures, detailed analysis will be conducted on a case by case basis before decisions are made to dispose of Zone 4 lands from public ownership. Although these lands meet Section 203 criteria, it will be management's decision as to which disposal authority will ultimately be used.

2. Public lands currently under Desert Land (DLE) application or entry that are relinquished or rejected will not be made available for further application for agricultural purposes. No public lands will be made available for disposal under the Desert Land Act and the Carey Act.

LAND 3: Authorize and manage the use of public lands for rights-of-way, right-of-way reservations, easements, permits, leases, licenses, agreements, etc., except for those areas identified as exclusion areas.

Applications for use of the public lands will be evaluated on a case by case basis using current existing laws, regulations, and procedures.

Rationale: FLPMA 212, 302, 307, 501, 507, 43 CFR 2800 and 2920. Allowing for use of the public lands by providing continuity for use authorizations.

Monitoring:

- Normal BLM accomplishment tracking process.

1. Authorize future authorizations that are compatible with existing uses except within those areas that are identified as exclusion areas. Authorize use within avoidance areas only when alternatives are not available or acceptable and resource impacts can be mitigated.

2. Manage certain areas as use authorization avoidance or exclusion areas. See Table ACEC-E, WNES-1, and Map LAND-E.

3. Prohibit the following activities on public lands:
   - New public waste disposal sites.
   - New or existing private waste disposal sites.
   - Storage or disposal of hazardous waste.

4. Process applications for rights-of-way, permits, leases, and other realty actions in a timely manner on a site-specific basis utilizing the NEPA process as well as current existing laws and regulations.

LAND 4: Acquire, where needed, public and/or administrative access to public land consistent with resource values and to ensure more efficient administration of the public lands.

Rationale: Due to the generally fragmented nature of public lands in some parts of the resource area, several critical access points, crossing private lands, lack legal access. Legal access is needed in these areas to ensure continued effective administrative and public use of these lands. This need becomes more acute as public use of these lands increases, and as land owners become more aware of the value of public and private land for recreation and other purposes. Land tenure adjustment actions (exchanges or fee purchases) can be a valuable tool for access acquisitions. However, without careful review, lands actions, particularly exchanges, can result in lost access. Other tools can also be utilized, such as constructing new roads around lands where access is restricted and the cost of acquisition would exceed the cost of construction or where such acquisition is not feasible.

Monitoring:
- Normal BLM tracking process. Review access needs on a regular basis.

1. Acquire public or administrative access where public demand or an administrative need exists. Place emphasis on providing access to areas containing high resource or recreational values. See Map LAND-4 for some identified access needs.

2. Ensure that public access is secured or acquired through all land tenure adjustment transactions.

3. Construct new roads around private lands where easement acquisition is not feasible but significant access needs have been identified.

4. Use the right-of-way regulations to acquire reciprocal rights-of-way for administrative access across private lands when appropriate.

5. Use the Cooperative Right-of-Way Agreement between the BLM and the State of Idaho to acquire access across state lands as needed.

LAND 5: Identify and abate unauthorized use of public lands.

Rationale: FLPMA 102, 303, 43 CFR 9230. The abatement of unauthorized uses protects resource values on the public lands and prevents loss of revenue due the United States.

Monitoring:
- Monitoring will include regular surveillance of lands and resources where a high probability of unauthorized use exists, as well as follow-up on information concerning possible trespass provided by the staff and by the public.
- Normal BLM accomplishment process will be utilized to track implementation of this decision.

1. Detect, confirm and abate, either by authorization or termination, all unauthorized use on public land.

LAND 6: Withdraw certain public land for protection from degradation and protection of identified resource values.

Rationale: Section 204 of FLPMA gives the Secretary the authority to make, modify, extend or revoke withdrawals and mandates review of withdrawals. Bureau Manual 2300 provides guidance. The placement of withdrawals on designated parcels of the public lands segregates them from certain uses to prevent unnecessary and undue degradation of a resource.

[redacted]

Monitoring:
- Normal BLM tracking process.
- Review withdrawals on a regular basis.

1. To protect high or sensitive resource values, withdraw those lands identified in Tables LOCM-E, and LAND-2 from disposal location, or entry (specific resource values noted in the tables).

New withdrawal proposals will be addressed on a case by case basis in accordance with FLPMA Section 204, current existing laws and regulations, and with full public participation.

LAND 7: Provide management prescriptions on those lands that have been returned to BLM management through revocation of withdrawals.

Rationale: FLPMA 204. Bureau Manual 2355 and the Annual Work Plan (AWP) process provides guidance. Lands currently under the jurisdiction of other agencies or lands currently withdrawn for a specific use need a management prescription when that existing withdrawal is revoked.

Monitoring:
- Normal BLM tracking process.

1. Manage lands that have been returned to BLM management through revocation of withdrawals in the same manner as adjacent lands. If returned lands have a significant resource, recreation, wildlife or cultural value, manage those lands for continued protection and enhancement of the value identified.

Locatable Minerals

LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

Rationale: The 1872 Mining Law (30 USC 22 et. seq), along with the Mining and Mineral Policy Act of 1970, declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102, reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. The National Materials and Minerals Policy, Research, and Development Act of 1980 restates the need to implement the 1970 act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making.

Monitoring:
- Regular surveillance to detect and confirm unauthorized mining activity.
- Monitor active mining operations.
- Make periodic inspections consistent with BLM policies.
- Continue the review of all pertinent literature.

1. Manage areas classified as having a high potential for locatable minerals primarily for mineral development while preventing unnecessary and undue degradation. See Map LOCM-2.

2. Allow mineral exploration and development on areas classified as having a moderate to low potential for locatable minerals subject to reasonable measures to prevent unnecessary and undue degradation.

3. Recommend withdrawal from mineral entry certain recreation areas, certain ACECs, and lands that become designated as Wild, Scenic or Recreational Rivers or Wilderness areas. See Table LOCM-E.

Fluid Minerals

FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

Rationale: The Mineral Leasing Act of 1920 as amended, the Geothermal Steam Act of 1970 as amended, and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal government to foster and encourage private enterprise in the development of domestic mineral resources. FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources.

Monitoring:
- Incorporate stipulations on leases as appropriate.

1. Provide maximum opportunity for leasing, exploration and development of oil & gas and geothermal resources consistent with the protection of other resource values.

2. Close certain areas to fluid mineral leasing to protect identified resource values. See Table FLUM-E.

3. Lease with no surface occupancy, seasonal occupancy and other surface occupancy stipulations certain areas to protect identified resource values. See Table FLUM-E.

Mineral Materials

MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

Rationale: The Materials Act of July 31, 1947 as amended (30 USC 601) and the Mining and Mineral Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of domestic mineral resources. The FLPMA, Section 102 reiterates that the Mining and Minerals Policy Act of 1970 is to be implemented and directs that the public lands are to be managed in a manner which recognizes the Nations need for domestic sources of minerals and other resources.

Monitoring:
- Geologist and other resource specialists to note unauthorized use, make periodic inspections for authorized use and maintain records in accordance with BLM manuals.

1. Provide for mineral material needs through negotiated sales, free use permits and community pits.

2. Detect, confirm, and abate unauthorized use on the public lands. Effect reclamation of lands damaged by unauthorized use.

3. Close certain areas to mineral material disposal. See Table MMAT-E.

4. Manage existing material sites for long-term use by government agencies and the general public.

Recreation

RECT 1: Provide for off-highway motor vehicle (OHMV) use on public lands while protecting sensitive resource values.

Rationale: Federal regulations require the BLM to designate all public lands as either open, limited, or closed to off-highway (or off-road) motor vehicle use for the purpose of meeting public demand for OHMV activities, to protect natural resources and the safety of the public, and to minimize conflicts among various user groups. Federal regulations pertaining to OHMV planning include 43 CFR 8342; Executive Order 11644, Use of Off-Road Vehicles on Public Lands (37 FR 2877: February 9, 1977); Executive Order 11989, Off-Road Vehicles on Public Lands (42 FR 26959h; May 25, 1977).

Monitoring:
- Periodic patrols to check designation boundaries, signing, and recreational use.
- In the Owyhee Front SRMA, patrols will be weekly. In the rest of the ORA, patrols will be monthly.
- Establishment of baseline data and photo points to determine impacts of recreation use on soil, water quality, and vegetation resources.
- Rehabilitation of specific sites as necessary.
- Monitoring of administrative activities to ensure compliance with OHMV designations and related motorized access authority/exclusion decisions.

[redacted]

1. Manage OHMV recreational use and mechanized vehicle recreational use on public lands in accordance with the following designations: See Maps RECT-1E1, RECT-1E2, and RECT-1E3.

Open: Off-highway motorized vehicle use is allowed on all public lands without special restrictions, except as otherwise posted: 192 acres.

Limited: Off-highway motorized vehicle use is limited to existing roads and trails year-round, except as otherwise posted: 519,442 acres. Off-highway motorized vehicle use is limited to designated roads and trails, except as otherwise posted: 698,363 acres.

Closed: All lands are closed to off-highway motorized vehicle use year-round: 101,994 acres.

2. Manage Over Snow Vehicle (OSV) recreational use on public lands in accordance with the following designations: See Map RECT-3E.

Open: Over snow vehicle use is allowed on all public lands without special restrictions, except as otherwise posted: 864,729 acres.

Limited: Over snow vehicle use is limited to designated areas, except as otherwise posted: 24,211 acres. Over snow vehicle use is restricted from 12/15 through 3/31, except as otherwise posted: 90,749 acres.

Closed: All lands are closed to over snow vehicle use: 259,036 acres.

Closed-IMP: All lands are closed to over snow vehicle use; if released from wilderness consideration, lands are then managed as limited to designated areas: 81,266 acres

RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for recreation use of public lands as an integral part of multiple-use management. Dispersed, unstructured activities typify the recreational uses occurring on most public lands. Federal regulations (43 CFR 8300) authorize the BLM to designate administrative units known as special recreation management areas (SRMAs) where there is a need to commit to a higher level of financial investment in recreational facilities and a higher level of managerial presence than is typical of most BLM lands. A SRMA designation signifies a long-term commitment to manage the physical, social, and managerial settings of an area to sustain specific activities and experience opportunities. The delineations are based upon administrative/managerial criteria that reflect congressional designations (such as national wild, scenic or recreational rivers), similar or interdependent recreation values, homogenous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, and public concern.

[redacted]

Monitoring:

- Specific monitoring needs are to be determined during the preparation of SRMA activity plans. These needs will generally include:
  a. Periodic patrols (several times yearly) to check boundaries, signing, and recreational use.
  b. Establishment of baseline data and photo points to determine current impacts from recreational use.
  c. Rehabilitation of specific sites as necessary, including the upgrading and development of recreation facilities.
  d. Development of "Limits of Acceptable Change" studies, where suitable, to help determine appropriate levels and patterns of recreational use, and the influences of other resource uses.

1. Manage all SRMAs for identified recreational opportunities and experiences. See Map RECT-2E.

2. Retain the boundaries of five existing SRMA designations totaling 54,296 acres.
   - Blackstock: 6,149 acres; semi-primitive motorized and roaded natural
   - Jump Creek: 8,667 acres; roaded natural and semi-primitive non-motorized
   - North Fork Canyon: 475 acres: primitive and roaded natural
   - Owyhee Canyonlands: 36,839 acres: primitive, semi-primitive non-motorized, and semi-primitive motorized (additional 5,627 acres in the Bruneau Resource Area). Manage in accordance with Owyhee River Recreation Area Management Plan (USDI-BLM, April 1983), or as amended.
   - Silver City: 2,166 acres: roaded natural and urban

3. Reduce the boundaries of one existing SRMA to a total of 601 acres.
   - Oregon National Historic Trail: 601 acres: semi-primitive motorized and roaded natural (5,955 acres moved to Snake River Birds of Prey SRMA)

4. Increase the boundaries of four existing SRMAs to a total of 377,916 acres.
   - North Fork Owyhee Backcountry: 56,801 acres (includes 208 acre addition): primitive and semi-primitive motorized
   - Deep Creek: 6,451 acres (includes 567 acre addition): primitive, semi-primitive non-motorized and roaded natural (additional 5,627 acres in the Bruneau Resource Area)
   - Snake River Birds of Prey: 53,177 acres (includes 45,587 acre addition): semi-primitive motorized and roaded natural
   - Owyhee Front: 261,487 acres (includes 79,896 acre addition): semi-primitive motorized and roaded natural

5. Designate 887,178 acres as an extensive recreation management area (ERMA) and manage primarily for semi-primitive motorized and roaded natural opportunities and experiences.

[redacted]

RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Rationale: The National Wild and Scenic Rivers Act (P.L. 90-542), Section 5(d), requires the Secretary of the Interior to identify "river" segments which are eligible to receive consideration as potential wild, scenic, and recreational river areas. Section 5(d) further directs the Secretary to determine which eligible river segments should be evaluated in the BLM planning process "... as alternatives to the developments being planned." This evaluation is referred to as the suitability determination. The procedures by which the BLM determines eligibility and suitability are described in 43 CFR 8351 (Designated National Areas) and the USDI-USDA Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

Monitoring:

- Periodic (several times per year) patrols to check boundaries and affected river corridor lands, signing, and recreational use.
- Establishment of baseline data and photo plots to determine current impacts from recreation use.
- Rehabilitation of specific sites as necessary, including the construction of small recreation sites at launch sites and take-outs, and the construction of portage trails around unrunnable or dangerous rapids.
- Undertake "Limits of Acceptable Change" studies on affected river corridors to determine the appropriate level and pattern of recreation use, and the influences of other resource uses.

1. Recommend to the Secretary of the Interior that 163.0 miles of eligible rivers and streams are suitable for national wild, scenic, or recreational river designation. See Map WSR-E.
    - South Fork Owyhee River: Wild: 26.5 miles
    - South Fork Owyhee River: Recreational: 1.5 miles
    - East Fork Owyhee River: Wild: 66.0 miles
    - Deep Creek: Wild: 32.0 miles
    - Nickel Creek: Wild: 8.0 miles
    - Current Creek: Wild: 7.5 miles
    - Current Creek: Scenic: 1.5 miles
    - Lower North Fork Owyhee River: Wild: 3.5 miles
    - Lower North Fork Owyhee River: Scenic: 0.5 miles
    - Upper North Fork Owyhee River: Wild: 16.0 miles

2. Provide for interim protection of wild, scenic, and recreational river values of these river segments while awaiting a determination by Congress. See Appendix RECT-1 for management standards for the three river classifications.

RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Rationale: The BLM is committed to maintaining recreation facilities to a standard that protects the resource, the public and the public investment, and fosters pride of public ownership, and to developing appropriate recreation facilities, balancing public demand, protection of public land resources, and fiscal responsibility. BLM planning guidance requires the BLM to coordinate with other federal and state plans such as the Idaho Statewide Comprehensive Outdoor Recreation Plan (SCORP) from the Idaho Department of Parks and Recreation and the River Basin Plans of the Idaho Department of Water Resources, and include applicable data and findings in BLM planning documents. Data taken from the Idaho SCORP indicates that overall recreation use in the ORA in 2015 will be 70% above 1995 use levels; placing increased demand on existing recreation facilities and warranting consideration of new sites and facilities.

Monitoring:
- Periodic (bi-weekly, weekly or monthly) patrols by maintenance staff to check facilities and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Maintain, upgrade, reconstruct, and/or modify recreational facilities at nine (9) recreation sites (See Map RECT-2E):
    - Hemingway Butte OHV Trailhead.
    - Rabbit Creek OHV Trailhead.
    - Fossil Creek OHV Trailhead.
    - North Fork Campground.
    - Jump Creek Recreation Site.
    - Little Squaw Creek Recreation Site.
    - Silver City Campground.
    - Ruby Junction Recreation Site.
    - Garat Crossing Recreation Site.

2. Construct additional recreation sites as public use levels increase:
    - Snake River Birds of Prey NCA - in conformance with approved NCA planning documents.
    - Owyhee Front equestrian trailheads - two sites.
    - Owyhee Uplands National Back Country Byway campgrounds - two sites.
    - North Fork Owyhee Backcountry trailheads - two sites.
    - Other sites as may be appropriate.

3. Maintain undeveloped recreation sites throughout the Owyhee Resource Area to protect public health and safety.

[redacted]

RECT 5: Develop a trail system that provides a range of motorized and non-motorized recreation opportunities for the public's enjoyment of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural settings.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579) provides for the recreational use of public lands as an integral part of multiple-use management. In accordance with this law, the BLM is committed to providing and maintaining a wide diversity of recreation opportunities on public lands, including opportunities to utilize developed trail systems. Idaho's SCORP identifies the role of federal agencies to develop dispersed facilities such as trails to meet existing and projected demand. There is increasing demand by user groups and local government entities to expand the trail system to accommodate a variety of trail opportunities.

Monitoring:
- Periodic patrols by maintenance staff to check trail facilities and recreational use. Patrols will be weekly, monthly or several times a year depending on trail location.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.
- Periodic (monthly) patrols of the road corridor to check signing and vehicle use, as well as roadway safety.

1. As public use levels increase, provide for the establishment or expansion of foot or equestrian trails, consistent with other management objectives, in the following areas:
   - North Fork Canyon SRMA - foot travel only
   - North Fork Owyhee Backcountry SRMA - foot/equestrian travel. See Map RECT-4.
   - Owyhee Canyonlands SRMA - foot travel only; portage trails around Owyhee Falls and Thread the Needle Rapid on the East Fork Owyhee River
   - Snake River Birds of Prey NCA - foot/equestrian trail around Guffey Butte. See Map RECT-5.
   - Jump Creek SRMA - foot trail into upper Jump Creek canyon
   - Other areas as may be appropriate

2. Provide for the evaluation, expansion, or modification of existing motorized and non-motorized trail systems to further public opportunities to safely enjoy recreational settings, consistent with other management objectives, in the following areas:
   - Owyhee Front SRMA
   - Other areas as may be appropriate.

3. Develop a mountain bike trail program utilizing existing dirt roads and trails.

4. Maintain the Owyhee Uplands National Back Country Byway's existing roaded natural opportunities. Enhance recreational opportunities associated with the corridor's roaded natural setting with interpretive materials and signs.

5. Modify existing motorized vehicle opportunities consistent with OHMV designations and subject to congressional wilderness designations.

6. Manage the Oregon National Historic Trail in accordance with the Oregon Trail Comprehensive Management and Use Plan (USDI-NPS, 1981) and Oregon Trail Management Plan (USDI-BLM,1984), or as may be amended.

[redacted]

RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Rationale: BLM is committed to enhancing recreational opportunities through land ownership adjustments, increased and improved access, and other acquisitions.

Monitoring:
- Monitoring of recreational use on affected non-federal properties.
- Monitoring for easement compliance.
- Periodic (bi-weekly) patrols by maintenance staff to check road conditions and recreational use.
- Periodic patrols by BLM Ranger(s) to assure visitor compliance with regulations concerning the appropriate use of public lands.

1. Pursue recreational easements that allow for public access.

2. Pursue the purchase (fee title) of properties which would enhance recreation opportunities.

3. Upgrade access roads from dirt to gravel into the North Fork Owyhee Backcountry SRMA trailhead locations.

RECT 7: Retain at least 10% of the ORA in a primitive recreational opportunity (ROS) setting.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102 (8), declares as policy that "...the public lands be managed in a manner that will protect the quality of the scenic resources...that, where appropriate, will preserve and protect certain public lands in their natural condition." At present, only 13% of the ORA retains a primitive setting (Resource Opportunity Spectrum classification).

Monitoring:
- Periodic updating of recreation opportunity spectrum (ROS) inventory.
- Application of ROS consideration through NEPA review.

1. Prohibit the construction of new rangeland (livestock, watershed, and wildlife) facilities within the primitive settings of the SRMA lands associated with the Owyhee River system, except for a maximum of one linear mile of gap fences if needed to exclude livestock from river corridors. See Map RECT-1 and RECT-2E. The affected SRMAs are:
    - North Fork Canyon SRMA.
    - North Fork Owyhee Backcountry SRMA.
    - Owyhee Canyonlands SRMA.
    - Deep Creek SRMA.

Wilderness

WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Rationale: Section 603 of the Federal Land Policy and Management Act (FLPMA) requires that all public lands be inventoried for the presence of wilderness characteristics. Those found to have wilderness characteristics are identified as wilderness study areas (WSAs) and are to be managed for the protection of wilderness values until such time that Congress can act on wilderness suitability recommendations prepared for each WSA. The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992 for submission to the President and Congress. The wilderness study areas in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	50,865
ID-16-41	Big Willow Spring	6,210
ID-16-42	Squaw Creek Canyon	10,780
ID-111(16)-44	Upper Deep Creek	530
ID-16-45	Middle Fork Owyhee River	14,820
ID-16-47	West Fork Red Canyon	12,970
ID-16-48A (OR-3-194)	Lookout Butte	34,400
ID-16-48B (OR-3-195)	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	24,790
ID-16-49A	Owyhee River-Deep Creek	52,090
ID-16-49D	Yatahoney Creek	4,745
ID-16-52	Juniper Creek	5,855
ID-16-53 (NV-010-103A)	South Fork Owyhee River	44,955
Total		298,630

See Map WNES-1 and Table WNES-1 for additional information.

Monitoring:

- Implement generic monitoring standards as specified in the Boise District IMP Plan and the Owyhee IMP Implementation Plan.

1. Ensure that WSA lands and Section 202 study lands remain substantially natural in character, retain outstanding opportunities for solitude and/or primitive recreation experiences, and support supplemental wilderness values.

2. Manage WSA lands in conformance with BLM Interim Management Policy For Lands Under Wilderness Review.

[redacted]

WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Rationale: The Federal Land Policy and Management Act recognizes wilderness as an integral part of the spectrum of multiple uses of public lands. Lands designated as wilderness are to be managed into perpetuity for the protection of wilderness and other multiple-use values in accordance with the Wilderness Act of 1964 and the BLM's Wilderness Management Policy (September 24, 1981). The Idaho BLM Wilderness Study Report was approved by the Secretary of the Interior in 1992. The President submitted these wilderness recommendations to Congress in September of 1992. The recommendations for wilderness in the Owyhee Resource Area are:

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	41,025
ID-16-48B	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	16,330
ID-16-49A	Owyhee River - Deep Creek	47,840
ID-16-49D	Yatahoney Creek	4,425
ID-16-52	Juniper Creek	5,785
ID-16-53	South Fork Owyhee River	44,955
Total		195,980

See Map WNES-1 and Table WNES-2 for additional information.

Monitoring:

- Monitoring needs are to be determined by specific wilderness management plans.

1. Manage designated wilderness in accordance with enabling legislation and other applicable federal legislation and policies.

Visual Resources

VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Rationale: The Federal Land Policy and Management Act (FLPMA; P.L. 94-579), Section 102(8), declares as policy that public lands will be managed to "... protect the quality of the scenic values... that, where appropriate, will preserve and protect certain public lands in their natural condition." The National Environmental Policy Act (NEPA; P.L. 9-190), Section 101(b), requires federal agencies to "... assure for all Americans... esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "...utilize a systematic, interdisciplinary approach which will ensure the integrated use of ... Environmental Design Acts in the planning and decision making..." process. Guidelines for the identification of VRM classes on public lands is contained in BLM Manual Handbook 8410-1, Visual Resource Inventory. The establishment of VRM areas is based upon an evaluation of the landscapes' scenic qualities, public sensitivity toward certain areas (such as special recreation designations or wilderness), and the location of affected lands from major travel corridors (distance zoning).

[redacted]

Monitoring:
- In VRM Class I and Class II areas, on-site visual quality control inspections will occur at the time of project construction, reconstruction, and maintenance.
- In VRM Class III and IV areas, ongoing quality control inspections of ORA project work in general will be done, however, attendance at specific project sites during construction, reconstruction, and maintenance will not be required.

1. Classify and manage public lands under the following VRM classifications:

Class I areas:	71,332 acres
Class II areas:	242,150 acres
Class II-IMP areas:	123,496 acres
Class III areas:	144,785 acres
Class IV areas:	738,228 acres

See Map VISL-E.
See Appendix VISL-1 for classification objectives.

Cultural Resources

CULT 1: Protect known cultural resource values from loss until their significance is determined.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Cultural resource sites are deteriorating from the effects of vandalism and neglect.

Monitoring:
- Monitor three cultural resource sites per year to determine site condition and mitigation needs.

1. Monitor a minimum of 15 cultural resource sites each year to determine site condition and provide information for developing management actions.

2. Mitigate the negative impacts to significant cultural resource sites known to be suffering the effects of agents of deterioration.

3. Develop management strategies to ensure preservation of cultural resource values within specific areas known to contain concentrations of unique or significant cultural resource sites.

CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

Rationale: The National Historic Preservation Act of 1966 provides for the protection of cultural resource values on land managed by federal agencies and identifies federal agency responsibilities to preserve prehistoric and historic cultural resources.

[redacted]

Monitoring:
- According to schedule outlined in the Oregon Trail Management Plan and the Birds of Prey Cultural Resource Management Plan.
- Make three site visits per year to ensure Silver City homeowner compliance with Owyhee County Historic Preservation Committee recommendations.

1. Protect the integrity of those portions of the 80 mile Oregon Trail and associated cultural resource sites on public land. See Map CULT-1.

2. Manage the existing Silver City, DeLamar and Guffey Butte/Black Butte Historic Districts in accordance with Section 110 of the National Historic Preservation Act of 1966. See Map CULT-1.

3. Manage the existing Guffey Butte/Black Butte Archaeological District ACEC to protect cultural resource values. See Table ACEC-E.

4. Identify, evaluate, and nominate sites/areas that qualify to the National Register of Historic Places and prepare Cultural Resource Management Plans for those sites.

CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

Rationale: The National Historic Preservation Act of 1966 identifies federal agency responsibilities to preserve prehistoric and historic cultural resources. Public participation in the preservation process is essential to prevent continued loss of cultural values.

Monitoring:
- Normal BLM accomplishment tracking process.

1. Participate in cooperation with State and other Federal agencies, Native American Tribes and private entities to conduct public outreach programs including "Archaeology Week" and other cultural resource related events.

Hazardous Materials

HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. Minimize the human health threat and the risk to natural resources from hazardous materials contamination.

Rationale: The Secretary's waste management initiative commits the Bureau to reducing hazardous material situations on public lands. Federal agencies are required to comply with all federal and state laws, regulations and policies regarding hazardous materials on public lands. These include:

- Resource Conservation and Recovery Act (RCRA), As Amended 1976/1980 - 42 USC 6901f.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980 - 42 USC 9601f.
- Federal Water Pollution Control Act (Clean Water Act) 1987 - 33 USC 1251-1387.
- Clean Air Act, As Amended 1977/1990 - 42 USC 7418.
- Federal Land Policy and Management Act, As Amended 1976 - 43 USC 1701f.

Monitoring:

- Periodic review of NEPA documents.
- Field review of compliance.
- Yearly assessment of reported sites.
- Follow-up monitoring to be developed on a case-by-case basis.

1. Ensure that hazardous material and potential hazardous material problems associated with BLM authorized land use actions are identified. All actions authorizing the use of hazardous materials will comply with Federal/State laws and regulations and authorization specific Bureau stipulations.

2. Increase law enforcement actions and public education to reduce the amount of illegal disposal of hazardous materials on public lands.

3. Implement remediation/removal actions for hazardous materials incidents on public lands in a timely and efficient manner.

4. Actively pursue having the polluter pay for hazardous material incidents and cost reimbursement for actions taken by the Bureau when a responsible party is identified.

Area of Critical Environmental Concern (ACEC)

ACEC 1: Retain existing and designate new Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and where special management is needed to protect the values identified.

Rationale: Section 202 (c)(3) of FLPMA mandates that priority be given to the designation and protection of areas of critical environmental concern. Further guidance and evaluation criteria are found at 43 CFR Part 1610.7-2.

Monitoring:

- Relevant and important values of each designated ACEC would be monitored on a regular schedule to evaluate the effectiveness of management in maintaining those values.

1. Designate the following as Areas of Critical Environmental Concern (ACECs): See Map ACEC-E.
    - Guffey Butte/Black Butte Archaeological District (7,750 acres)
    - Owyhee River Bighorn Sheep Habitat Area (141,796 acres)
    - Boulder Creek Outstanding Natural Area (6,978 acres)
    - North Fork Juniper Woodland Outstanding Natural Area (4,204 acres)
    - Cinnabar Mountain Research Natural Area (277 acres)
    - Coal Mine Basin Research Natural Area (1,604 acres)
    - Jump Creek Canyon (612 acres)
    - McBride Creek Research Natural Area (261 acres)
    - Pleasant Valley Table Research Natural Area (1,467 acres)
    - Sommercamp Butte Research Natural Area (440 acres)
    - Squaw Creek Research Natural Area (150 acres)
    - The Badlands Research Natural Area (1833 acres)

The total acreage of the 12 designated areas is 167,372 acres.

2. Designate The Tules as a Research Natural Area (114 acres). The Tules is within the boundary of the Owyhee River Bighorn Sheep Habitat Area ACEC.

3. Manage designated ACECs with the special management actions identified in Table ACEC-E.

4. Complete exclosure fencing of Squaw Creek RNA/ACEC and a segment of McBride Creek RNA/ACEC within two years.

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This chapter, Affected Environment, presents information on the resources and resource uses within the Owyhee Resource Area that would be impacted by one or more alternatives

Climate

Climate in the Owyhee Resource Area is primarily influenced by maritime air from the Pacific Ocean carried by prevailing westerly winds. Winter temperatures occasionally dip below 0 F° and summer temperatures frequently rise above 100 F°. See Table CLIM-1 for climate data from representative weather stations located in or adjacent to Owyhee Resource Area. Climate station locations are identified in Table CLIM-2. November, December, and January are typically the wettest months while July, August, and September are the driest. Annual precipitation is related to elevation and ranges from about 7 inches in the lower elevations to over 40 in at the higher elevations. See Figure CLIM-1. Climate graphs for low (2,325 feet), medium (3,930 feet) and high elevation (6,160 feet) stations are shown in Figures CLIM-2, CLIM-3 and CLIM-4. Floods can occur both from spring runoff and from intense summer thunderstorms. Thunderstorms are most prevalent along the Owyhee Front.

Existing data suggests no long-term trend in precipitation. More than sixty years of data from Swan Falls Power House indicates wide fluctuations but no definite long-term trend in annual rainfall. See Figure CLIM-5. The short-term trend has been normal precipitation (plus or minus one inch of average) for 5 of the last 10 years (1988-1997) with 2 years below normal and 3 years of above normal precipitation.

Geology

The geology of the Owyhee Resource Area has been mapped by Ekren and others (1981). Other publications, Ekren and others (1982 and 1984) are the basis for much of the following stratigraphic description. The surface geology of the resource area is dominated by Cenozoic volcanic and sedimentary rocks.

The Owyhee Resource Area is entirely within the Columbia River Intermontane Physiographic Province and encompasses a portion of the western Snake River Plain and the Owyhee Uplands. The relatively flat-lying region between the Snake River and the Owyhee Mountains is part of the Snake River Plain, a fault-bounded structural basin partially filled with interbedded volcanic lavas and tuffs and lake sediments of late Tertiary to Quaternary age. The Owyhee Uplands, which form the southern border of the Snake River Plain and include the majority of the resource area, is an area of uplift and complex Tertiary volcanism dominated by the Owyhee Mountains on the north and the Owyhee Plateau to the south (Malde, 1991).

The western Snake River Plain is a northwest-trending, structural basin. It is bounded by high-angle normal faults and represents an intra-continental rift structure (Mabey, 1982). Rifting began in Miocene time and was accompanied by the eruption of widespread basalt flows, visible today only in scattered areas of the Owyhee Mountains and in deep exploration wells drilled in scattered portions of the western Snake River plain. During the remainder of Miocene and Pliocene periods, the subsiding basin was partially filled with thick deposits of lake sediments interbedded with intermittent lava flows and tuffs. At or near the end of the Pliocene period the depositional environment changed from primarily lake-deposited (lacustrine) sediments to stream-deposited (fluvial) sediments. This was caused by two factors:

1) the Snake River cutting a permanent outlet to the sea through Hell's Canyon to drain a large lake (sometimes referred to as Lake Idaho) formed when the river was dammed by volcanic eruptions and uplift, and

2) the climate gradually becoming cooler and drier. By Pleistocene time, sediments eroded from the still rising highlands of the Owyhee and Boise Mountain Ranges were being deposited in a mostly dry basin cut by the Snake River and periodically dammed by local flows of Snake River basalt.

The majority of the sediments deposited from Pleistocene to Recent times consist of Terrace and stream sands and gravels with local lake deposits of clay and silt. Total thickness of the sedimentary and volcanic rocks deposited in the western Snake River Plain exceed 11,000 feet (Wheeler and Cook, 1954; Kimmel, 1982; Malde and Powers, 1962).

The Owyhee Uplands is a large volcanic field composed mostly of thick flows of welded ash-flow tuffs and lavas erupted onto late Cretaceous granites of the Idaho Batholith and scattered metamorphic rocks thought to be related to the metamorphic terranes exposed in northeastern Oregon and west-central Idaho. The northern part of the Owyhee Uplands includes the Owyhee Mountains, part of which is termed the Silver City Range, a highly mineralized area containing important deposits of precious metals (Sorenson, 1927; Ekren and others, 1982).

The Owyhee Mountains form the southwestern boundary of the Snake River Plain rift. The Owyhee Mountains are from 4,000 to 8,000 feet in elevation and are composed of a wide variety of volcanic rocks of Tertiary age, ranging from Eocene to Miocene in age. The oldest rocks exposed are pre-Cretaceous metasedimentary rocks ranging from schists to marble and represent the original basement rock in the area (Bennett and Gailbraith, 1975). These rocks are exposed at South Mountain and in the Flint Creek drainage where they occur as roof pendants and inclusions in the surrounding granitic rocks considered by Taubneck (1971) to be part of the Idaho Batholith of Cretaceous age. Batholith rocks are primarily granodiorite and quartz monzanite, but also include stocks of granite, quartz dorite and gabbro. The oldest Tertiary rocks in the resource area are basalts and andesite lavas of Oligocene age which locally reach thicknesses of 3,800 feet in the northern Silver City Range. Oligocene-age rocks were erupted onto an eroded granitic-metamorphic basement about 30 million years ago. Uplift began in Miocene time with a sequential series of volcanic eruptions ranging from basalt and quartz latite dated at 17 million years to massive flows and tuffs of rhyolite ranging from 16 to 13 million years old. Numerous rhyolitic dikes and plugs intrude older rocks in this sequence and are related to the precious metal mineralization of the northern Owyhee Mountains.

The Owyhee Plateau is a broad volcanic plain extending south from the Silver City Range into Nevada and westward into eastern Oregon. Elevation ranges from 4,000 to 6,000 feet, except where it is cut by deep river canyons. The geology of the Owyhee Plateau resembles a layer cake of thick rhyolitic lavas and ash-flow tuffs of Miocene age ranging from 13.8 to about 9.6 million years old. These massive sheets of rhyolite lava and welded-tuffs originate from two or more eruptive centers located at Juniper Mountain and what has been termed the Bruneau-Jarbidge eruptive center (Bonnichsen, 1982) east of the resource area. Each eruptive center is thought to contain numerous calderas similar to those found at Island Park and Yellowstone Park. The total volume of lavas and tuffs erupted from these two centers has been estimated to exceed 1,000 cubic miles of material. Total thickness of the rhyolite sheets on the Owyhee Plateau is unknown, but is probably in excess of several thousand feet.

Overlying the rhyolites is a relatively thin veneer of sediments and basalt flows erupted from numerous shield volcanoes throughout the area. These two rock types have been collectively named the Banbury basalt and are also of Miocene age, ranging from 10 to 8 million years in age. The youngest rocks on the Owyhee Plateau consist of wind-blown loess, minor terrace gravels, stream gravels and landslide deposits ranging from late Miocene to Recent in age (Malde and Powers, 1962).

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Air Resources

Air quality in a given location is described by the concentration of various pollutants in the atmosphere. Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and meteorological conditions relating to the prevailing climate. The significance of a pollutant concentration is determined by comparison with Federal and/or State air quality standards. These standards represent the maximum allowable concentrations of various pollutants necessary to protect public health and welfare with a reasonable margin of safety.

National Ambient Air Quality Standards (NAAQS) are established by the Environmental Protection Agency (EPA) for criteria pollutants including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. The Idaho Division of Environmental Quality (IDEQ), Air and Hazardous Waste Division specifically, has the primary responsibility to carry out the requirements of the Federal Clean Air Act (CAA) in Idaho. The primary mechanism for implementation is known as the State Implementation Plan (SIP), which the EPA requires each state to prepare.

The 1977 CAA amendments made it very clear that the Federal Government is subject to the CAA requirements. The 1990 CAA amendments required EPA to establish the transportation and general conformity regulations. The Final General Conformity Rule, effective January 31, 1994, applies to non-transportation related federal activities such as prescribed fire. A conformity determination must be made for projects emitting air pollutants over specified de minimis levels to show that the projects will not contribute to any NAAQS violations. If a project is found to contribute to NAAQS violations, then emissions must be reduced or offset. The National Ambient Air Quality Standards are shown in Table AIRQ-1.

Of the six air pollutants, particulate matter (PM) is of most concern for the BLM in its authorized activities involving smoke emissions and dust. There are currently six NAAQS for PM. In addition to the PM10 standard (PM equal to or less than 10 micrometers in aerodynamic diameter), there is now an annual and 24-hour PM2.5. PM2.5 stands for PM less than 2.5 micrometers in aerodynamic diameter which is 1/4 the size of PM10. Attainment/nonattainment designations for the new PM2.5 NAAQS will begin in the year 2002. The majority of PM from smoke emissions is composed of organic and elemental carbon, and inorganic ash in the PM2.5 size class. IDEQ believes that the new PM2.5 NAAQS will be more difficult to meet compared to the PM10 NAAQS.

The EPA assigns classifications to areas with respect to air quality conditions. When an area is considered for classification, there are three possible outcomes of the designation process for each of the criteria pollutants: (i) nonattainment - any area that does not meet (or that contributes to ambient air quality in an area that does not meet) the national primary or secondary standard for the pollutant, (ii) Attainment - any area (other than an area identifies in clause [i]) that meets the national primary or secondary ambient air quality standard for the pollutant, or (iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. The closest nonattainment area that could be affected by BLM permitted actions is Northern Ada County (for PM10).

The CAA also establishes a national goal of preventing any further degradation or impairment of visibility within federally designated attainment areas. Attainment areas are classified as Class I, II, or III and are subject to the Prevention of Significant Deterioration (PSD) program. Class I areas include national wilderness areas (larger than 5,000 acres) and national parks (larger than 6,000 acres). Class III status is assigned to attainment areas to allow maximum industrial growth while maintaining compliance with NAAQS. All other attainment areas are designated Class II. The RMP area is a designated Class II area. The Jarbidge Wilderness Area, located in Elko County, Nevada, is the closest PSD Class I designated area.

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Criteria to determine the significance of air quality impacts are based on the above referenced standards and regulations. Impacts would be significant if project emissions (1) increase ambient pollutant concentrations from below to above any NAAQS, (2) contribute to an existing violation of any NAAQS, (3) impair visibility within federally mandated PSD Class I areas, or (4) result in non-conformance with the Clean Air Act or any SIP.

Limited data is available on the air quality of the RMP area due to the fact that no air quality stations are operating in this portion of Owyhee County. Some data gathered at a field study station near Silver City (1988 & 1989, CH2M Hill) indicate that levels for PM10 and TSP are well below the current Federal and State standards. Average particle concentrations measured were 28.4 ug/m3 for TSP and 20.1ug/m3 for PM10. The PM10 concentration is well below the Federal and State 24-hour standard of 150 ug/m3 and indicates the area has low levels of TSP and PM10 (CH2M Hill, 1990). Other parameters, though not monitored, are believed to be below the Federal and State standards due to no available source of emissions.

The DEQ has two advisory programs related to fire. The air quality advisory program is primarily to address woodstove and fireplace emissions in the winter, but can be activated at any time. There is currently an air quality advisory program for northern Ada County. When air quality reaches critical levels, burn bans may apply to open burning that may impact the area. The air stagnation advisory applies to any area. Open burning and some permitted stationary sources are required to cease when a NAAQS violation is possible or occurring.

By state law, Idaho cannot regulate agricultural burning but can encourage and support voluntary programs. In the spirit of this law, Idaho prefers to have voluntary rather than mandatory programs related to forest and rangeland burning. Currently, under development in southern Idaho, is a process between agencies to share information and develop a voluntary smoke management program.

Smoke management is necessary to minimize air quality and visibility impacts in smoke sensitive areas from prescribed burning. The use of prescribed fire as a basic management technique for maintaining and enhancing productivity of the public lands must be coordinated with proper management of the smoke generated. Prescribed burning should be planned, coordinated (including adjoining states), and conducted in order to minimize the impact of smoke by combining favorable atmospheric transport and dispersion conditions with prescribed fire management techniques. These techniques may include (but not be limited to) the size of the burn, season, time of day, moisture content of the fuel, fuel treatment, ignition method, and topography of the area.

Other sources affecting air quality are large scale mining and milling operations (dust from roads, construction, crushing, blasting, and other related operations). In these instances operators are required to comply with regulations and standards, or if exceeded, apply for the proper permits with the appropriate permitting agency. The Bureau's role in these matters is non-regulatory.

Wind blown soil particles, due to lack of vegetative cover and disturbance of the soil surface, also affect air quality (vegetative treatments, herbivore, and OHMV activities contribute to this condition).

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Soil Resources

The soils in the resource area are extremely diverse. This diversity is a result of the variability in parent materials, slope, aspect, location on the landscape, elevation, climate, vegetation patterns, and age and time in place. The soils may be separated by using three main physiographic regions: the Snake River Sediments, the High Rhyolite and Basalt Plateaus, and the Owyhee (mountain) Uplands. See Map SOIL-1.

The Snake River Sediments have an aridic or aridic/xeric soil moisture regime and a mesic soil temperature regime. They are characteristically shallow to very deep and well drained. Textures are sandy or silty with high calcareous and/or saline conditions. Some of these soils have restrictive cemented layers in their profile (hardpans). These soils range in elevation from 2,260 feet to 3,400 feet. The erosion potential from wind and/or water (sheet, rill, and gully) is moderate to high.

The High Rhyolite and Basalt Plateaus have an aridic/xeric or xeric soil moisture regime and a mesic or frigid soil temperature regime. They are characteristically shallow to deep and well drained. Textures range from silt loams to clay loams with varying amounts of rock fragments both on the surface and in the profile. Many of these soils have well developed subsoils. Some of these soils have restrictive cemented layers in their profile (hardpans). These soils range in elevation from 3,400 feet to 5,800 feet. The erosion potential from water (sheet and rill) is low to high.

The Owyhee (mountain) Uplands have a xeric soil moisture regime and a frigid to cryic soil temperature regime. They are characteristically shallow to deep and well drained. Textures range from loams to clay loams with varying amounts of rock fragments both on the surface and in the profile. Many of these soils have thick dark surface horizons. These soils range in elevation from 5,600 feet to 8,400 feet. The erosion potential from water (sheet and rill) is low to high.

Soils information for the resource area was obtained from the National Resource Conservation Service (NRCS)/BLM soil survey (3rd order) of Owyhee County (awaiting publication). Additional soil information and detailed soil maps are on file at the Boise Field Office or can be obtained from the NRCS.

Of the 1,313,975 public land acres within allotments in the resource area, 44% have been classified as having a high erosion hazard rating (the erosion hazard rating only classifies a soils potential susceptibility to the erosive forces of nature if the existing vegetational cover were removed not the actual present erosional condition of the soil). See Table SOIL-1. These erosion ratings were based on the wind erodibility index, erosion susceptibility factor (K) and slope. Soils with a wind erodibility index of from 1 to 4 and soils with an erosion susceptibility factor (K) of greater than (>) .43 were classified with a high erosion hazard rating. Soils on slopes exceeding 30% were also classified with a high erosion hazard rating. See Appendix SOIL-1 for a summation of high erosion hazard ratings by allotment.

There are portions of the High Rhyolite and Basalt Plateaus and the Owyhee (mountains) Uplands that have been invaded by western juniper (invasion varies from slight to substantial). Current literature is divided as to the affect this species invasion has on the hydrologic function (water yield, infiltration, and soil erosion) of sagebrush/grassland range sites. Blackburn (1985) concluded that "Limited off-site water yield increases can be expected by converting brush to grass and forbs at the high precipitation zones of pinyon-juniper or mountain big sagebrush watersheds". Field observations conclude that there is no evidence of accelerated soil erosion associated with juniper invasion. There is no site specific data that addresses infiltration rates under these conditions so no conclusions can be drawn.

Based on field observations (Seronko, 1998), most of the current specific erosion problems are on soils derived from sedimentary and/or granitic parent materials. Rill and gully erosion are low over most of the resource area except on the Snake River Sediments (269,180 acres) and the granitic soils (86,410 acres). Many of these soils are on steep, poorly vegetated slopes.

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Many of the soils in the Snake River Sediments region and the lower reaches of the High Plateau region are associated with an early seral or disturbed vegetative condition. Native vegetation is being depleted and replaced by undesirable species (increaser shrubs, annual grasses, and exotic forbs) at a slow but steady pace. Areas in poor ecological vegetative condition have proven less effective in protecting the soil resource. As vegetative cover is depleted and the species composition is changed, the productivity of the soils is being reduced through erosion and lack of biological diversity (Blackburn et al., 1986). Continuation of this trend could lead to desertification (as defined by the United Nations Environment Programme (UNEP), Mabbutt, 1985) in some areas. Both plant composition and cover have an important effect on water infiltration rates. Plant density provides a protective vegetative and litter cover for the soil surface. This cover intercepts rain drops and dissipates impact velocity. Rain drop impact has a two-fold effect on soils. First, it causes particle detachment and displacement, and second, it causes compaction of the soil surface by sealing pores. Both actions affect infiltration and runoff. When infiltration rates are decreased, the result is an increase in runoff and subsequent soil loss (Meeuwig, 1970). Eventually this detached soil material enters streams, rivers and other bodies of water degrading these systems.

In addition to soil protecting vegetational degradation, the Snake River Sediments region and the lower reaches of the High Plateau region have experienced widespread disturbance of soil stabilizing microbiotic soil crusts (Seronko,1998). These organisms are particularly important in these low precipitation, sparsely vegetated areas because they shield the soil from rain drop impact, slow down surface runoff, prevent wind erosion, and build soil (Belnap,1995, Harper, 1985, Williams, 1995). Trampling by herbivores is one of the major disturbances affecting these organisms.

Also affecting infiltration is the amount of compaction and the resulting increase in bulk density in the soil profile. Trampling by livestock, OHMV use, and road building are direct causes of compaction. Under moist soil conditions (spring and early summer), even light trampling can effectively compact the soils. This is especially critical on soils with heavy textured surface horizons. Soil compaction has been shown to also reduce vegetative vigor and productivity. Several studies (Rauzi and Hansen, 1966) on grazing intensity consider heavy trampling to be more harmful to soil than excessive grazing is to the plants.

Much of the low elevation Owyhee foothills (those lands below 4,000 feet elevation draining toward the Snake River) are in an at-risk or unsatisfactory watershed condition (based on my 20 years of watershed experience and personal observations) . Pedestalling of bunchgrasses, surface flow patterns, and litter movement after storm events is very evident. This indicates advanced sheet erosion problems. Native microbiotic soil crusts which are a important watershed protection component of these low elevation rangelands (Belnap, 1995) have been severely impacted by historic livestock practices and OHMV activities.

Both large and small scale mineral activities contribute to the soil erosion process. Construction of access roads, exploratory drilling areas, and the mining process can lead to soil loss and subsequent sediment delivery to streams.

The approved Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management address the need for maintaining or promoting watershed health/function by having adequate amounts of ground cover (determined on an ecological site basis) to support infiltration, maintain soil moisture storage, and stabilize soils. Also addressed is the need to maintain or promote soil conditions that support permeability rates and minimize soil compaction and the use of grazing management practices that promote streambank stability.

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Water Resources

The Owyhee Resource Area is located in the Snake River hydrologic basin. Within this basin are some drainages which flow directly into the Snake River and others which flow into the Owyhee River. Major drainages within the Owyhee River watershed include the Owyhee River, Jordan Creek, North and Middle Forks of the Owyhee River, South Fork of the Owyhee River, and the Little Owyhee River. The resource area yields about 800,000 acre-feet of water per year. This water supports fish and wildlife, recreational opportunities, and agricultural uses.

The resource area is drained by about 46 perennial and major intermittent streams. See Table WATR-2 and Map RIPN-2. The length and location of permanently wetted sections of intermittent streams depends on snowpack volume and runoff timing. Water yield during high snowpack/precipitation years can be 20 times that for a low snowpack precipitation year. Runoff fluctuates by season and water year. Typical spring flows are often 30 times higher than summer, fall and winter flows. Additional water resources in the area include approximately 438 reservoirs seasonally storing about 1,107 acre feet of water.

The United States Geological Survey (USGS) maintains stream flow gauges on the Owyhee River near Rome, Oregon, on the South Fork of the Owyhee River near Whiterock, Nevada, on Succor Creek and Jump Creek near Homedale, Idaho and on the Snake River just downstream of Swan Falls Dam near Murphy, Idaho. The USDA Agricultural Research Service monitors streamflow in the Reynolds Creek Watershed. Average annual discharge over the last 40 years for the Owyhee River at Rome, Oregon is about 721,000 acre feet. The shape of the hydrograph for most streams in the resource area is similar to that shown for the Owyhee River near Rome, Oregon. See Figures WATR-1 and WATR-2.

The primary water resource issues in the resource area are riparian area conditions, existing water quality conditions, redband trout (*Oncorhynchus mykiss gairdneri*) and recreational water quality (Finch, 1989 and BLM RMP scoping process). The pollutants of greatest concern are water temperature, fine sediment deposition, stream-riparian habitat alterations, and fecal coliform bacteria (Idaho Water Quality Bureau, 1991).

The condition of riparian areas is a primary water resource management concern. They act to dissipate the erosive energy of high flows, stabilize streambanks, and protect against animal trampling and ice flows. They control stream morphology, store water for later release back to the stream channel and provide shade which helps maintain cooler water temperatures. They act to filter out nutrients and sediment from the surrounding watershed. In general, riparian condition has a major influence on water quality and quantity (Adams and Fitch 1998, Ehrhart and Hansen 1998, Montana DEQ 1998).

The primary impacts to water quality in area streams are thought to be excessive livestock grazing and historical mining practices. Primary pollutants related to livestock grazing are water temperature, fine sediment deposition, stream-riparian habitat alteration, and fecal coliform bacteria. The primary pollutants from historical mining operations are heavy metal concentrations and sediment. The majority of streams impacted by historical mining are located in the Silver City area.

The most common impact to fish communities area-wide are high water temperatures and fine sediment deposition. Warmer water temperatures and increased fine sediment deposition causes a shift from redband trout dominated populations to dace, sucker, and shiner populations. A summary of fish communities is shown in Table WATR-5.

The State of Idaho, in order to comply with provisions of the Clean Water Act and Environmental Protection Agency (EPA) regulations, must submit to EPA, a list of water quality-limited water bodies (EPA, 1994). Water quality-limited waters are not expected to attain or maintain State water quality standards. Waters identified in this list are given a priority ranking to target those waters on which Total

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Maximum Daily Load (TMDL) criteria will be developed by the State (EPA 1991). BLM management actions affecting waters with TMDLs must conform to these pollution control requirements.

Limited information is available on ground water quantity and quality in the resource area. Main aquifers occur primarily in silicic volcanic rocks. Ground water recharge is mainly from precipitation. Generally ground water is at relatively great depths throughout the area but does come to the surface at many springs. Water yield data is available for 134 springs: 70% yield 2 GPM (gallons per minute) or less, 19% yield 2-3 GPM, and 11% yield more than 3 GPM. The average yield for these springs was 1.7 GPM.

A study conducted in the Bruneau-Grand View area (USGS, 1979) indicates that groundwater quality is marginal for domestic, industrial and agricultural uses. The water contains moderate to high percentages of sodium and excessive amounts of fluoride. Mean fluoride content is 10.6 mg/l. High fluoride levels limit the desirability for domestic uses. High sodium levels present problems with agricultural irrigation uses on all but well drained soils.

Limited data does not indicate any long-term trend in water quantity in streams. The Owyhee River at Rome has exhibited wide fluctuations in flow over the last 41 years but not definite trends. See Figure WATR-1. Due to varying annual snowpack volumes, wide annual fluctuations in flow are common on the smaller streams throughout the area as well.

An inadequate amount of data documenting changes in riparian area condition throughout the resource area precludes determining current trend in surface water quality conditions. Since water quality is expected to improve after riparian conditions improve, riparian trend will generally serve as a surrogate for water quality trend.

The demand for high quality water will probably increase in the future. Present management of land use activities is not contributing to the maintenance of high quality water. The capabilities exist to improve watershed conditions and to provide for water resource protection. Compliance with Idaho BLM Standards for Rangeland Health and Guidelines for Livestock Grazing Management, and BMPs and component practices approved in the Idaho Pollution Abatement Plan will address many of these concerns.

Vegetation

The Owyhee Resource Area contains a wide range of elevations, rainfall, temperatures, and soil types. This results in a variety of vegetation communities. There are nine major vegetation community groups within the resource area. Each major vegetation group is based on differences in proportions and kinds of plant species that are potentially dominant on a specific site.

Table VEGE-1 lists the major vegetation community groups, acres, corresponding range sites, and common species found within potential natural communities. This vegetation information was compiled from data obtained from the current soil survey of Owyhee County (NRCS, awaiting publication). With this survey soil associations were mapped and acreage for each range site was compiled. See Map VEGE-1 for the vegetation communities in the Resource Area.

The most common vegetation community groups in the resource area are those containing big sagebrush. Plant communities dominated by Wyoming big sagebrush cover 29% of the resource area. These plant communities generally occur in the lower rainfall/lower elevation portions of the resource area and occur throughout the resource area. The common understory species will be Thurber needlegrass and, at slightly higher elevation, bluebunch wheatgrass. Mountain big sagebrush dominated plant communities

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occur on 12% of the resource area. These communities occur at higher elevations with greater precipitation or, at the lower elevations, they occur on north-facing slopes. The most common understory grass species is Idaho fescue. Bluebunch wheatgrass also occurs in the lower elevation sites. These communities are extensive throughout the Owyhee Mountains and the Owyhee Uplands.

The other major community group are those communities dominated by low sagebrush. Low sagebrush dominated communities occur under a wide variety of conditions. However, generally, they are characterized by sites with shallow rocky soils. Understory grass species include bluebunch wheatgrass at lower elevation, Idaho fescue at higher elevations or precipitation levels and Sandberg's bluegrass on the sites with the shallowest soils such as scablands or ridgetops. Low sagebrush communities occur throughout the resource area.

Within the Owyhee Uplands, many areas are dominated by western juniper but less than 8% of the resource area is considered to have western juniper as the potential natural community. The areas currently dominated by western juniper includes areas which are potentially mountain big sagebrush or low sagebrush vegetation sites. The central portion of the resource area is dominated by a combination of western juniper, mountain big sagebrush and low sagebrush major vegetation groups, and this complex of major vegetation communities is the most extensive in the resource area.

The salt-desert shrub vegetation communities dominate 7% of the resource area, and are generally located below 3,500 feet. These communities have as the dominant shrub species shadscale, budsage, fourwing saltbush or greasewood. They occur in areas with very low precipitation (less than 10") and commonly have soils which are sandy or saline or otherwise very droughty. The primary understory grass species are Indian ricegrass, Thurber needlegrass or basin wildrye depending on site location.

Two other important vegetation communities found within the resource area are the riparian and forested communities. Descriptions of these communities can be found in their respective sections.

Soil and Vegetation Inventory Method (SVIM) surveys were conducted in the Resource Area between 1977 and 1981. The Bureau of Land Management used the information gathered from these surveys to classify the vegetation communities into four condition status ratings. The condition class of the public lands was determined to be in 58% poor, 32% fair, 8% good, less than 1% excellent and 2% treated.

A repeat of the original surveys would be the best method to determine if changes have occurred since 1981. Unfortunately surveys are expensive and the Resource Area has not been resurveyed. Using vegetation trend data, interpretation of photo plot data, climate, utilization, actual use and estimated use, as well as resource specialists professional judgement, the current ecological status is believed to be 44% early seral, 43% mid seral, 11% late seral, less than 1% PNC and 2% treated (see glossary for definition of ecological status). See Table VEGE-2 for the current estimated ecological status on public lands by allotment.

Poisonous plants and noxious weeds are present within the resource area. A list of noxious weeds which occur within or close to the resource area are shown in Table VEGE-3. Noxious weeds are those weeds defined by law as being especially undesirable, troublesome, or difficult to control.

Medusahead wildrye, an introduced annual grass, is also found in the resource area on heavy clay sites and is sometimes found in association with big sagebrush and bottlebrush squirreltail or in nearly pure stands. The areas dominated by this annual will remain dominated for many years unless effort, such as burning, spraying or plowing followed by seeding occur.

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Riparian-Wetland Areas

Riparian habitat, as defined by BLM policy, is an area of land directly influenced by permanent surface or subsurface water. It has visible vegetation or physical characteristics reflective of permanent water influence (USDI-BLM, 1991). Wetlands, as defined by the U.S. Fish and Wildlife Service (Cowardin et al. 1979), are transitional lands located between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water and having one or more of the following attributes: (1) at least periodically, the land supports hydrophytes; (2) the substrate is predominantly undrained hydric soils; (3) the substrate is nonsoil and is saturated with water or covered by shallow water at sometime during the growing season each year.

Healthy riparian areas have many benefits. These areas act to reduce erosion, provide habitat for fish and wildlife, and improve water quality and quantity. Healthy riparian areas stabilize streambanks, control stream morphology and limit damage to streambanks from ice, high flows, and animal trampling. Plant roots hold soils and stabilize streambanks while the vegetation acts to reduce the velocity and, therefore, the erosive energy of overbank flows; thereby reducing erosion (Adams and Fitch 1998, Ehrhart and Hansen 1998, Montana DEQ 1998). Streams with streambanks devoid of vegetation have dramatically higher sediment levels than streams with vegetated streambanks (Schlosser and Karr, 1981).

Riparian vegetation provides shade which is one factor that helps maintain cooler water temperatures, preventing lethal water quality conditions for fish. Cooler water temperatures increase the stream's ability to hold dissolved oxygen. Riparian vegetation also produces up to 90% of the organic matter a stream needs to support aquatic communities (Campbell and Franklin, 1979, Cummins et al., 1989).

Riparian areas act to filter out nutrients and sediment from the surrounding watershed. Healthy areas act as sponges to soak up excess water, nutrients, and sediments during runoff events. Water is then released to the stream more gradually allowing additional streamflow to be extended into the dry seasons (Adams and Fitch 1998, Ehrhart and Hansen 1998, Montana DEQ 1998).

Riparian ecosystems are an extremely productive land type containing a diversity of both plant and animal life (Kaufman and Krueger 1982, Chaney and others 1993, Montana DEQ 1998). The influence of riparian ecosystems on wildlife extends beyond the riparian boundary to populations in upland habitats as well (Carothers 1977). Wildlife use of riparian areas is often disproportionate to use of other habitat types. Many species are totally dependent on these areas for their survival. Examples of the latter include beaver, river otter, muskrat, water shrew, bald eagles, California quail, all waterfowl and shorebirds, dippers, belted Kingfishers and all frogs, toads, salamanders and fish. Riparian areas also provide fawning habitat as well as high quality forage, cover and water for mule deer; brood-rearing habitat for sage grouse; nesting habitat, escape cover and foraging habitat for many other game and nongame birds; foraging and roosting habitat for bats; and yearlong habitat for a diversity of rodents and reptiles.

Riparian areas provide high quality recreational opportunities in the form of fishing, hunting, boating, hiking, wildlife viewing, sight-seeing and camping. These uses are also disproportionate to recreational opportunities provided by other vegetation types. Archaeological and historical sites are also commonly found in close proximity to riparian areas.

Riparian ecosystems generally tend to have the following similarities: (1) they are well-defined areas in relation to the much drier surrounding uplands; (2) they make up a minor proportion of the overall land area; (3) they have higher productivity than the surrounding uplands; (4) they support much higher densities and diversity of plants and animals than the surrounding uplands; (5) their condition is critical for maintaining fish habitat and water quality (see Kauffman and Krueger 1984 for a thorough review); and (6) livestock tend to congregate and utilize riparian areas to a greater extent than upland areas (Reid and

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Pickford, 1946; Severson and Boldt, 1978, Clary and Webster 1989). Size and vegetation complexity of these areas vary greatly because of the many combinations that can be created between water sources and physical site characteristics. These characteristics include gradient, aspect, topography, soil type, water availability, and plant communities.

The impact of livestock on riparian zones can be considerable. For example, Marlow (1985) found approximately 80% of the forage used by livestock came from riparian areas even though they comprised less than 4% of the total acreage in a pasture. In Oregon, Roath and Krueger (1982) found the riparian zone (2% of the allotment) accounted for 81% of the total vegetation removed by cattle. Livestock impact riparian zones by affecting four general components: streamside vegetation, stream channel morphology, shape and quality of the water column, and the structure of the streambank (Kauffman and Krueger, 1984). Long livestock grazing periods result in decreased riparian vegetation vigor and biomass, and alteration of species composition and diversity (Bryant et al., 1972; Pond, 1961, Adams and Fitch 1998, Chaney et al. 1998, Ehrhart and Hansen 1998). Changes in riparian vegetation species to more xeric species or reductions in streamside vegetation affects streambank stability (Platts, 1979, Adams and Fitch 1998). Riparian plants have denser root structures and are thus better able to bind soil particles and resist erosion than upland plants. Loss of streambank stability leads to channel shape changes including downcutting and lowering of the riparian water table or widening of the stream channel leading to shallowing of the water column (Behnke and Raleigh, 1979; Elmore and Beschta, 1987, Adams and Fitch 1998, Chaney et al. 1998). Accompanying changes in water quality include increased water temperatures, suspended sediment, and alterations in the timing and volume of water flow. Livestock congregating in riparian areas cause elevated nutrient and bacteria concentrations. High nutrient concentrations lead to increased growth of aquatic plants which can lower dissolved oxygen concentrations. All of these impacts result in decreased coldwater fish populations and community changes to warmwater species (Raleigh, 1984; Duff, 1979, Adams and Fitch 1998).

Riparian areas are found throughout the resource area in association with perennial and major intermittent streams as well as many reservoirs, springs and wet meadows. There are about 1,687 miles and 5,348 acres of riparian and potential riparian areas in the resource area based upon wetland types (Cowardin et al, 1979) according to USF&WS National Wetlands Inventory Maps. About 652 miles and 3,179 acres of these meet the current BLM definition for riparian areas. See Map RIPN-1 for the distribution of wetlands in the resource area and Table RIPN-2 for a list of riparian areas by allotment.

Riverine riparian areas are typified by narrow bands of riparian vegetation from 10 to 100 feet in width. Riparian vegetation is typically composed of one or more of the following communities: a stream canopy cover consisting of a tree or shrub community, a secondary shrub community set back from the stream, and a herbaceous vegetation community. Stream canopy shrub communities are made up primarily of willow (Salix spp.), aspen (Populus tremuloides), black cottonwood (Populus trichocarpa), or alder (Alnus spp.). Red osier dogwood (Cornus stolonifera), chokecherry (Prunus virginiana), black hawthorn (Crataegus douglasis), or wood's rose (Rosa woodsii) are the dominant shrubs set back from the streams. Herbaceous communities are made up of rushes (Juncus spp.), spike rushes (Eleocharis spp.), sedges (Carex spp.), bluegrass (Poa spp.) and other grasses and forbs. Vegetation composition and density varies widely depending upon elevation, soils, water availability and ecological site condition. The highest quality riparian areas are dominated by obligate wetland vegetation (e.g., Carex nebraskensis or Carex rostrata) types whereas sites in lower ecological condition are dominated by facultative upland vegetation types (e.g., Poa spp.). Sites in better ecological condition are typically found at higher elevations where precipitation and subsurface moisture is most dependable and in areas where livestock grazing has historically been restricted by steep terrain or other physical barriers. Map RIPN-1 shows wetland areas based on the National Wetland Inventory.

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Numerous springs, seeps and upland wet meadows are scattered throughout the resource area, primarily at elevations above 4,000 feet. These areas are of critical importance for maintaining biodiversity. They are typically dominated by rushes, sedges, bluegrasses, mules-ear (Wyethia amplexicaulis), iris (Iris missouriensis) and other herbaceous species in deep soil meadow sites and by willows, aspen and other woody riparian species on shallower, rockier sites, typical of many springs and seeps.

There are numerous stock ponds and reservoirs which support riparian vegetation. These range in size from 0.1 to over 700 acres. Quantity and quality of riparian vegetation varies in response to water level fluctuations and livestock use. Most livestock reservoirs are less than one acre in size and have limited potential for enhancement of riparian values due to intense livestock grazing pressure. Some of the larger reservoirs with more dependable water could be enhanced by fencing to exclude livestock or piping water to a different location.

Streams in the Snake River drainage area are of three distinct types;

(1) unconfined streams with streambanks composed of highly erosive lakebed sediments,

(2) unconfined streams composed of unconsolidated gravel outwash and

(3) confined streams located in tight canyons.

Impacts to unconfined streams are caused by loss of riparian vegetation which leads to down-cutting and lowering of the water table in lakebed sediment areas and widening of the stream channel in the unconsolidated gravel sections. Once degraded, both of these stream types are likely to flow intermittently. Examples of this condition include Rabbit Creek, Hardtrigger Creek, Squaw Creek, Browns Creek, and Pickett Creek. All of the unconfined stream segments are in unsatisfactory condition. Stream sections in lakebed sediments have a higher potential for improvement of both the riparian community and streamflows than those in unconsolidated outwash. Recovery, however, will require many years of proper management. Stream reaches in satisfactory condition in this area include short sections of Jump Creek and Reynolds Creek. These reaches are all in tight canyons with no direct impacts from livestock grazing, mining, or road construction.

Streams in the Jordan Creek/Boulder Creek drainage area are of three major types: (1) moderately stable, moderate gradient large boulder dominated streams (e.g. Upper Jordan Creek, South Boulder Creek); (2) unconfined, moderate gradient, coarse unconsolidated gravel streambeds within incised canyons (e.g., Jordan Creek Canyon, Boulder Creek); and (3) V-shaped drainages (e.g., South Mountain Creek). Large boulder streams have a low vulnerability, are relatively stable and are primarily affected in this area by historic mining impacts and loss of riparian vegetation needed to shade the stream. Unconfined streams suffer from high streamwidth to depth ratios caused by annual loss of riparian vegetation. Confined streams in V-shaped canyons are impacted by loss of riparian vegetation which is needed to provide shade and help rebuild streambanks. Impacts to riparian habitat in this area include mining, livestock grazing, and, more recently, outdoor recreation.

Streams in the Owyhee River drainage area are of three major types: (1) streams running through steep V shaped canyons (Thomas Creek, Middle Fork Owyhee River, Squaw Creek); (2) deeply incised meandering streams (e.g., Owyhee River, Red Canyon Creek, North Fork Owyhee River); and (3) streams draining broad, bowl-shaped basins (e.g. Pete's Creek in Bull Basin). The sheer-walled canyon streams have low vulnerability to change because many of these streams have downcut to bedrock and the tight sheer-walled nature of the drainages limits widening of the channel. Present impacts to these canyon streams are caused by loss of vegetation which reduces stream shading and the inability of the stream to rebuild streambanks. Incised streams also have a relatively low vulnerability to future change because of their bedrock confinement. These streams are most impacted by the annual loss of riparian vegetation which limits the ability of the stream to rebuild streambanks. Broad valley streams are susceptible to further degradation because they are located in more erosive unconsolidated gravel sediments. Once degraded, these stream types are likely to flow intermittently. Livestock grazing has had the greatest impact on riparian vegetation communities in this area.

In southwestern Idaho, riparian conditions dictate water quality and fisheries habitat condition. A healthy, properly functioning stream channel and riparian area usually means good water quality and an abundance of healthy trout. Changes in the condition of the stream channel or the riparian area have a direct impact on the quality and quantity of fishery habitat. The primary water pollutants in the resource area are high water temperatures and fine sediment deposition. Both of these are directly related to riparian area condition. Water temperature is most sensitive to changes in air temperature and incoming solar radiation when streamflow is low, stream width to depth ratio is high, relative humidity is high, and wind speed is high. Incoming solar radiation is directly related to the amount of shade over the stream. Air temperature, relative humidity and wind speed within the stream corridor are related to riparian condition. Riparian areas with healthy shrub communities have lower air temperatures, humidities and wind speeds than the surrounding uplands. Stream width to depth ratio is controlled by streambank stability which is related to riparian condition. Well vegetated stable streambanks promote low stream width to depth ratios. Deep narrow streams are less susceptible to changes in weather conditions than wide shallow streams whose water temperatures have been shown to closely follow air temperatures (USGS, 1989). A major source of instream fine sediment deposition is from unvegetated eroding streambanks. See Appendix RIPN-1 for characteristics of riparian areas in satisfactory condition in the resource area.

Inventories of riparian areas within the resource area conducted since 1976 show that about 85% of those inventoried are in unsatisfactory condition. About 33% of the riparian area miles in the resource area have been inventoried. Stream reaches with riparian condition classifications are listed in Table RIPN-1 and shown on Map RIPN-3.

Concerns include management of livestock grazing, mining, road construction, and very localized recreational activities which have all had an impact on riparian areas and water quality. The major concern, however, is management of livestock grazing. Streams and rivers throughout the resource area are contained in narrow, steep-sloped canyons where livestock congregate during the hot season for water and shade. This concentrated use results in a reduction in streamside vegetation and trampling of streambanks. Heavy streamside use leaves riparian soils vulnerable to high runoff events. Downcutting or lateral expansion of the stream channel results in a decline in water quality and in fisheries habitat.

Current livestock grazing practices allow for too much use during the hot season (July-September). The rate and direction of riparian condition change is dependent to a large degree on the amount of vegetative regrowth occurring after livestock are removed from a pasture and the amount of physical damage (e.g., bank trampling and shearing) which occurs (BLM 1989). Myers (1989) suggests that a minimum of 30-35 days between livestock removal and vegetation dormancy is required for adequate vegetative regrowth. Vegetative regrowth is needed to provide streambank stability and improve vegetation composition and structure. Clary and Webster (1989) recommend leaving a minimum 6 inch herbaceous riparian stubble height at the end of the growing season or grazing season, whichever is later, on streams providing sensitive species habitat. Myers (1989) also found a lack of riparian are an improvement when cattle were allowed to graze more than a total of 28 days or 12 days during the hot season (July 1 - September 15) on streams similar to those found in the resource area. A Bureau technical reference (BLM, 1989) on riparian grazing management reports that use of willows during the summer months is destructive to willow growth and regeneration. Inventory data indicate that moderate to heavy use of willows by livestock begins to occur around mid-July. Myers found that cattle heavily use willows when use of herbaceous plants exceeds 60%.

Forest Management

Western juniper (Juniperus occidentalis) in the Owyhee Resource Area exists as a component of the Sagebrush Steppe Ecosystem (Bailey, R.G., Kuchler, A.W., 1966; Potential Natural Vegetation of the United States, USDI, Geological Survey). On the Owyhee Plateau, this ecosystem can be more accurately defined as a western juniper-sagebrush-bunchgrass ecosystem. Juniper woodlands stretch from the northern front of the Owyhee Mountains south to the canyons of the Owyhee River. Scattered or thin stands of juniper appear within the sagebrush-bunchgrass communities at about 4,500 feet of elevation throughout this region. At or near 5,500 feet in elevation, some juniper stands have become dense enough to suppress and eliminate understory species such as bitterbrush and sagebrush as well as other shrubs, forbs and grasses. It is common to find juniper interspersed with stands of mahogany and aspen at this and higher elevations. High density of juniper within aspen stands may replace and eliminate these important vegetation communities. In the higher reaches of the Owyhee Mountain Range and on South Mountain, intermixed stands of Douglas-fir (Pseudotsuga menziesii) and subalpine fir (Abies lasiocarpa) occur.

Burkhardt and Tisdale (1969) separate western juniper stands into two general categories, climax and seral stands, using tree age as a basis for separation. Climax stands occupy rock outcrop and shallow, stony soil sites. Tree ages range from seedlings to well over 500 years, with most individuals trees falling into the 100 to 300-year old category. Seral juniper stands fully occupy or are encroaching into the moderate to deep soil sites found adjacent to climax sites. The seral sites are generally the swales and valley bottoms lying between ridgelines. Tree ages are widely variable, with the maximum age being around 100 years.

The aspect of these two communities differ primarily in the growth forms of younger and older trees. The most conspicuous trees on climax sites are over 150 years old. These trees are usually large, heavily limbed from near the base, and characterized by round-topped crowns lacking strong terminal leaders. Associated with these old-growth trees is the fruiticose lichen (Letharia vulpina). This lichen is noted for its bright yellow color. The lichen colonies become attached to the bare wood of dead or dying branches. No lichen colonies are found in the seral juniper stands. The seral stands are composed of younger trees with conical shaped crowns, prominent terminal leaders, and dead or dying limbs are generally lacking.

Juniper canopy cover and density are variable on both climax and seral sites, but for different reasons. The number of trees on the seral sites largely depends on how far encroachment has progressed and the age of the stand. It is possible to find seral sites with only a few trees per acre and others with a closed juniper canopy. Seral stand densities on deep soil sites have been found with up to 840 adult trees per acre. No climax stands have been found approaching this tree density.

Western juniper woodlands currently occupy about 260,000 public land acres on woodland sites within the resource area. Climax stands exist on about 100,000 acres and seral stands of varying age classes occupy about 160,000 acres. An area is considered to be a woodland site if juniper provides at least 10% of the canopy (crown) cover. Map FORS-1 shows the extent of juniper woodlands on all lands in the Owyhee Resource Area. See Table VEGE-4 for juniper occurrence by allotment. Appendix LVST-1 identifies allotments where juniper is a management concern and reflects areas where sufficient juniper exists to warrant management attention.

The understory vegetation differs markedly between the two juniper communities. Mountain big sagebrush (Artemisia tridentata ssp. vaseyana) and antelope bitterbrush (Purshia tridentata) are the primary shrubs on climax sites usually with less than 1% crown cover. These two shrub species are much more important on the seral sites. Depending on the degree of juniper encroachment, these species plus lesser amounts of snowberry (Symphoricarpos spp.) and green rabbitbrush (Chrysothamnus viscidiflorus) can provide up to 25% crown cover on the seral sites.

The principal herbaceous species in both communities are perennial bunchgrasses. Bluebunch wheatgrass (Agropyron spicatum), Idaho fescue (Festuca idahoensis) and Sandberg bluegrass (Poa secunda) occur with high constancy and frequency in both climax and seral juniper stands. Thurber needlegrass (Stipa thurberiana) is also characteristic of the climax sites. A group of 13 perennial forbs, notable because of their absence from climax western juniper sites, occur in seral stands with considerable constancy. These forbs are common associates of sagebrush-bunchgrass communities on the Owyhee Plateau.

According to Burkhardt and Tisdale (1969), "juniper invasion is wide spread throughout west-central Owyhee County and from the age class distribution it is apparent that this process began in the 1860's. The rate of invasion was slow until about 1900, then increased to a maximum between 1930 and 1940. Since 1940 invasion has slowed, but is still occurring. At present, juniper has more than doubled the area occupied in 1860." It appears in the absence of fire or other control measures that the deep, loamy sites are likely to be occupied in time by dense stands of juniper with virtual elimination of desirable understory vegetation. This could have negative consequences for watershed, wildlife and livestock.

Under the current management objectives for woodland resources most seral juniper sites are identified as lands available for restricted management of forest products such as fuelwood. No seral sites have been identified for the long-term intensive management of forest products. Once removed, it is the intent to keep future seral juniper encroachment in check through periodic prescribed fire. Some seral sites which lie within special designations, such as SRMAs, ACECs and WSAs, are to be managed for the enhancement of other uses: specifically recreation, scenic, wildlife and wilderness or wild river values. All climax juniper sites have been identified as being not available for forest products. See Appendix FORS-1 for woodland classification criteria.

There are currently six identified woodcut areas in the Owyhee Resource Area which contain 11 cutting layouts. See Map FORS-2 for the woodcut areas. Three of the layouts were active in 1998. The eleven layouts affect over 4,000 acres of seral juniper encroachment sites which have deep soils. No mature or climax juniper stands are involved. To date, about 1,000 acres have been clearcut of juniper in accordance with prescribed cutting standards contained in the Owyhee Juniper Woodland Harvest Management Plan (1987). The cutting layouts characteristically include existing grassland swales located at the center of each layout. Map FORS-3 of the Boni Woodcut Layout along the Owyhee Uplands National Back Country Byway shows a typical cutting layout. Although cutting occurs in seral stands at about 10 cords per acre, associated open areas reduce cords per acre of clearcut to about 3.5 cords. The cordage per acre of clearcut should increase as cutting layouts reach into higher elevations. The cutting rate is estimated to be between 50 and 300 acres per year over the next several years.

Douglas-fir (Pseudotsuga menziezii) communities are found in association with subalpine fir (Abies lasiocarpa), and are widely scattered across the north-central portion of the resource area above 6,000 feet in elevation. The communities exist as small, isolated stands on predominantly north or east-facing slopes where snowfields linger and which receive shading from the sun by topographical features. Some fir stands have taken hold under seral western juniper and quaking aspen (Populus tremuloides), gaining overstory control and causing their decline or elimination. About 35,000 to 40,000 acres of the Douglas-fir communities are found within the resource area.

Douglas-fir forms a lower forest community, and may create a savanna either individually or as part of the mountain shrub or steppe vegetation. This species merges with the juniper communities at the lower elevations and the subalpine fir communities which occur at the higher elevations on cool, moist sites.

The last major harvesting of the fir occurred during the settlement and mining of the Silver City and South Mountain areas in the latter half of the 19th century. Current harvesting of the Owyhee Mountains stands are from private and State lands. No Douglas-fir has been harvested from public lands in the Owyhee Resource Area for at least 20 years, except for occasional salvage removal of individual dead or downed trees. The Douglas-fir communities are mostly second-growth forests.

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An inventory using the Timber Production Capability Classification (TPCC) was completed in 1980. The TPCC study showed that about 36,200 acres of commercial forest species, mostly Douglas-fir, with some subalpine fir, were found in the Owyhee Mountains. The total board foot (BF) of the Douglas-fir and subalpine fir, in the study, shows about 206,000,000 BF (206 MMBF), or about 5,700 BF per acre. The percent of forests, or forestlands, within an inventoried land unit are:

Excellent stands	-	81-100 :	22% of total TPCC Study
Good stands	-	61-80% :	3%
Fair stands	-	41-60% :	22%
Poor stands	-	21-40% :	44%
Very poor stands	-	0-20% :	9%
			100%

Good and excellent timber stands (25%), with about 10,000 acres, would be the main forest resource in the resource area, producing about 10,000 to 12,000 BF/acre, or about 132 MMBF (64%) of the TPCC study area.

The Douglas-fir series includes habitat types. Habitat types are a system of classification of overstory vs. understory vegetation on forestlands. The habitat types that are found in the Owyhee Mountains are Douglas-fir/elksedge (Psme/Cage), Douglas-fir/Oregon grape (Psme/Bere), Douglas-fir/snowberry (Psme/Syor), Douglas-fir/mountain sweet-root (Psme/Osch), and Douglas-fir/mountain mahogany (Psme/Cele). See Appendix FORS-2 for additional descriptions.

Forest management areas include the following:

1. Lands available for intensive management of forest products.
No acres, or areas, are currently planned within the Owyhee Resource Area where forest management would be the primary use.

2. Lands available for restricted management of forest management.
Less than 10% of the 36,200 acres of commercial forest lands, or about 3,000 to 5,000 acres, are available for restricted management practices. Problems with the commercial acreage are that most stands have been cut in the past and current stocking levels are around 30%-50%; acreage for most stands is small (less than 30 acres); natural or artificial regeneration in most sites is difficult to be achieve because of brush competition and steep slopes (greater than 30% slopes); and small amounts of volume in BF.

3. Lands where forest management is for enhancement of other resources.
All Douglas-fir forests (approximately 36,200 acres) on public lands are currently being managed for the enhancement of other uses such as watershed, recreation, scenic and wildlife resources.

4. Forest lands not available for management of forest products.
About 36,200 acres of Douglas-fir forests have no forest management practices planned.

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Wildlife Habitat

The resource area contains 12 major plant communities and five other special habitats which support an estimated 159 resident and 183 migratory species of wildlife. Some of these communities, while occupying a relatively small area, support a disproportionately large number and diversity of wildlife. Within most plant communities are a variety of ecological sites with unique soils, vegetation and topographic features which combine to provide the ecological diversity necessary to support the large diversity of wildlife species found within the resource area. Table WDLF-1 lists major plant communities and special habitats and estimated total numbers of wildlife species determined by Maser, et al (1984) to be associated with most of these habitats in the Great Basin of southeastern Oregon. These plant community/habitat descriptions, with the exception of Douglas-fir and juniper, are the same as those listed by Maser, et al (1984). These descriptions were used so that the information presented in that publication on the relative importance of each community/habitat to wildlife could be incorporated into this plan. It is assumed that wildlife species/habitat associations within the resource area will be comparable to those found in southeastern Oregon. Plant communities and estimated acreages as presented in Table WDLF-1 and as analyzed in Chapter IV - Wildlife differ from those listed in Table VEGE-1 which are potential natural communities that would become established on major range sites if succession were allowed to run its course.

Wildlife can be separated into three broad categories including game, nongame and special status species. (Special status animal species are addressed in a separate section.) Traditionally, emphasis has been placed on habitat management for popular game species, some special status species and raptors and their prey species within the Snake River Birds of Prey National Conservation Area (SRBOPNCA). Other wildlife received very limited attention in terms of inventory, monitoring or management of populations or habitats. This situation has changed in recent years with the BLM's increasing emphasis on nonconsumptive wildlife values, protection and improvement of riparian/wetland habitat, biodiversity and ecosystem management.

Game species can be defined as those for which the Idaho Department of Fish and Game (IDF&G) or U.S. Fish and Wildlife Service (USF&WS) have set specific hunting seasons and bag limits. These can further be broken down into big game, upland game, furbearers, waterfowl and other migratory game species. Within the resource area there are four species of big game animals, nine species of upland game, seven species of furbearers, twelve waterfowl species and three other migratory game species. Table WDLF-2 lists the major game species, habitat acreage and key habitat associations.

The vast majority of wildlife species within the resource area are classified as nongame species. This includes a large diversity of mammals, birds, reptiles, amphibians and fish, some of which are classified as special status species. All migratory nongame birds are protected from harvest by the Migratory Bird Treaty Act and all resident nongame birds except for starlings, English sparrows and pigeons are fully protected by the State of Idaho. Raptors (birds of prey) are the most visible and closely monitored group of nongame animals and occur throughout the resource area in every habitat type. Eighteen species are known to nest within the resource area while another eight occur as winter residents, migrants or rare visitors. One of the world's largest known concentrations of nesting raptors occurs in the Snake River Birds of Prey National Conservation Area (SRBOPNCA) which encompasses 80 miles and 482,457 acres of the Snake River Canyon and adjacent public lands within the Owyhee and Bruneau Resource Areas. Fourteen raptor species are known to nest within the SRBOPNCA. Concentrations of cliff-nesting species also occur within the Owyhee River Canyonlands and most other canyon habitats.

Table WDLF-2 shows key habitat associations, habitat acreage and population trends for the major game species within the resource area. Most inventory, monitoring and management has traditionally been done for game species, although habitat condition and trend data for even these species is very limited and is based primarily upon extrapolations from vegetation inventories done from 1979 through 1981. These extrapolations were made using limited monitoring data and professional judgement. Most wildlife population and some habitat information was acquired from IDF&G Species Management Plans (1991-1995) and IDF&G, Region 3 biologists.

Mule Deer

Until the winter of 1992/1993 mule deer numbers, at least in the northern half of the resource area and primarily within Idaho Fish and Game Management Unit (GMU) 40, had been steadily increasing. Much of this increase was thought to be due to a series of mild winters resulting in high overwinter fawn survival. During this period, utilization of bitterbrush and other important browse species throughout the ORA increased substantially on both winter and summer ranges and was nearing, and in some cases exceeding, recommended utilization levels. Both wildlife and livestock contributed to these increased use levels with much of it being attributable to the extended drought which reduced production and palatability of herbaceous forage resulting in greater dependence on bitterbrush and other browse. Drought and increased utilization levels reduced browse vigor which resulted in reduced leader growth, seed production and germination. As a result, many bitterbrush and other browse stands became quite decadent. Bitterbrush is the key deer browse species throughout the area. 1992 was an especially dry year which resulted in very poor forage production and intense competition for what forage was available. This resulted in deer entering the winter in poor condition which, combined with a return to near-normal snowfall, contributed to relatively high winter mortality. Four years of normal to above normal precipitation since 1994 have begun to reverse much of the adverse impacts of the drought. While deer numbers are still low, especially in GMU 42, they are thought to be above historic lows and forage production and vigor is improving primarily in response to increased precipitation. The exact causes of low deer numbers have not been determined although the loss of shrub steppe habitat to encroachment of seral juniper, degraded riparian habitat and localized livestock overgrazing of other key habitats are likely contributing factors. See Map WDLF-1 for mule deer distribution.

Rocky Mountain Elk

Elk populations have expanded rapidly within the Owyhee Resource Area in the last 10 to 15 years. In 1992, elk hunting was permitted in Owyhee County for the first time since 1972 with a total of five bull permits being issued in GMU 40 and none in GMU 42. This has been increased to a total of 40 bull and 225 cow permits currently being issued in units 40 and 42 with the goal of maintaining elk herds at or near their present size. The highest quality elk summer habitat occurs at higher elevations where Douglas-fir, aspen, shrub steppe and meadow/riparian vegetation types combine to provide abundant forage and cover. Although a portion of the resource area's elk herd winters in eastern Oregon, those that remain winter mostly at mid to lower elevations within mixed juniper/shrub steppe habitats and adjacent private agricultural lands near the Idaho/Oregon state line. Protection from harvest and mild winters have both probably contributed to the rapid increase in elk populations within the resource area and throughout the region. While obviously not limiting the increase in elk numbers to any significant degree, the extended drought did limit production and vigor of forage plants and undoubtedly increased competition with livestock, deer and other wildlife for food and cover and increased use of and impacts to meadow and stream riparian habitats. As already discussed, four years of normal to above normal precipitation since

1994 have begun to reverse many of the drought's adverse impacts. At current population levels, elk do not appear to be limited by habitat conditions, although, localized competition with livestock for forage and space, disturbance and loss of habitat from mining and mineral exploration activity, roads, logging on private and state lands, recreational activities, and juniper encroachment are all suspected to limit elk distribution and habitat availability to some degree. See Map WDLF-2 for elk distribution.

Pronghorn Antelope

Pronghorn antelope populations appear to be relatively stable although habitat is generally in less-than-desirable condition throughout much of the area and could probably sustain larger numbers if conditions were improved. Localized overgrazing or incompatible livestock management, juniper encroachment and extended periods of drought have all combined to create and sustain these conditions. A lack of dependable water, especially at lower elevations, may also be limiting pronghorn antelope distribution and numbers, especially in drought years. Until recently, winter/spring pronghorn antelope habitat within a portion of the Snake River plains was showing noticeable improvement as a result of conversion from spring to winter livestock grazing. The extended drought slowed, and possibly even reversed, the trend over much of this area for several years, but habitat conditions have begun to improve again with the return to normal to above normal precipitation in 1995. Winter livestock use, while improving habitat conditions, may also have resulted in some increase in direct competition for forage and space during the winter months, especially during drought years. See Map WDLF-3 for pronghorn antelope distribution.

Sage Grouse

Sage grouse populations have been steadily declining for years and are at historic lows throughout most of their range, including southwest Idaho. Populations in eastern Oregon were designated as a federal candidate species (C2) for possible listing as threatened or endangered until the decision was made by the USFWS to drop the vast majority of species from this list in 1996. It is currently listed as a BLM Sensitive Species and is very likely to be petitioned for listing as a threatened or endangered species in the near future. This indicates a need for close monitoring of populations and protection of key habitats in the ORA. Although the exact cause(s) of declining sage grouse numbers are not fully understood, six years of drought are assumed to have had an adverse effect on these populations by drying up springs and wet meadows and limiting production and availability of forbs and insects during the brood rearing period. Increased livestock use of wet meadows and springs during the drought undoubtedly added to this problem. Concentrations of livestock and wildlife at these water sources leads to competition for water as well as succulent forbs which are a major component of the sage grouse's spring and summer diet. Maintaining adequate big sagebrush cover is also very important but has not been a major problem in recent years due to the relatively low number of wildfires, prescribed burns or other treatments in sagebrush habitats within the resource area. Although not documented or considered to be serious problem at this time, OHMV activity has the potential of becoming a disturbance factor as use levels increase, especially within lower elevation sage grouse nesting habitat along the Owyhee Front. See Map WDLF-4 for sage grouse distribution.

Chukar

Chukar habitat in the steep canyon slopes which support a mixture of shrubs and annual and perennial grasses is good throughout much of the area. However, riparian habitats which provide important brood rearing habitat and food and cover, especially during harsh winters and drought years, are generally in an unsatisfactory condition. A total of 11 guzzlers and numerous spring and stream riparian exclosures and riparian pastures have been developed to enhance habitat for chukar and other species using State HIP cost share funds in association with BLM range improvement program funds. See Map WDLF-5 for chukar distribution.

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California Quail

California quail are highly dependent upon farmland and lower elevation riparian habitat. As with chukar, concentrated livestock use of riparian habitats have likely had a negative impact on quail populations, especially during drought years. Riparian enhancement projects have improved some quail habitat but most is still in unacceptable condition.

Ring-necked Pheasant

Ring-necked pheasant nesting and foraging habitat occurs mostly on private agricultural lands, although shrub dominated upland and riparian habitats on public lands adjacent to farm fields provide important winter and escape cover for pheasant. One cooperative farming agreement has been developed and implemented to improve habitat for pheasant and other species in coordination with the IDF&G and the adjacent land owner. Other scattered tracts are being evaluated for their potential as cooperative agreement and development sites. While some upland and riparian shrub habitats are providing adequate cover, many are in unacceptable condition. Livestock grazing, OHMV activity and drought have had the greatest adverse impacts. See Map WDLF-5 for pheasant distribution.

Waterfowl

Although the ORA does not support large numbers of waterfowl, reservoirs, streams and rivers throughout the area do provide habitat for a diversity of nesting, wintering and migrating duck and geese. During the drought years, the availability of many ponds, reservoirs and streams was severely limited, especially during fall migration. Heavy livestock grazing pressure has resulted in unsatisfactory habitat conditions along most of the resource area's perennial or major intermittent streams and at unfenced reservoirs and stock ponds. Only a handful are currently being managed to enhance habitat for waterfowl and other wildlife. Waterfowl habitat is generally in acceptable or improving condition only where livestock access is limited or excluded by terrain or exclosure fences.

Furbearers/Predators

Most furbearer and predator populations, although not closely monitored, appear to be relatively stable according to IDF&G. Included are mountain lion, bobcat, coyote, red fox, kit fox, racoon, badger, striped skunk, spotted skunk, long-tailed weasel, ermine, mink and river otter. Habitat conditions for many furbearers are in less than satisfactory condition, however, and could probably support substantially higher populations. Beaver, muskrat, raccoon, mink and river otter are all dependent upon riparian/aquatic habitats and require dependable yearlong water for survival. Degraded riparian/aquatic habitats, common throughout the resource area, have a direct impact on these species in terms of limiting food, cover and water quality and quantity. Predator populations generally fluctuate in response to prey abundance which is, to a large extent, determined by habitat quality and quantity. The combination of heavy livestock grazing and beaver activity has lead to severe habitat degradation in some areas. The elimination of local beaver food supplies (i.e., willow and aspen) forces beaver to abandon dams which are subsequently washed out, often resulting in severe stream channel erosion. In the absence of heavy livestock grazing, beaver can normally maintain healthy riparian ecosystems and rapidly improve degraded riparian systems by building and maintaining dams that slow and spread stream flows, which allows sediment to drop out and rebuild eroded channels. They also improve or create habitat for other species associated with, or dependant upon, riparian/wetland habitat. Most other furbearers, while not strictly dependent upon riparian habitats, are often closely associated with these habitats as sources of food, cover, water and travel corridors. Other activities that have resulted in localized adverse impacts to riparian/wetland and upland furbearer habitat include mining and mineral exploration, road construction and maintenance and OHMV activity.

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Raptors

Raptor species, including golden eagles, prairie falcons, red tail hawks and ferruginous hawks, have been closely monitored for many years within the SRBOPNCA. Results have shown that all four species are maintaining relatively stable breeding populations within the SRBOPNCA. Nesting habitat for most cliff nesting raptors throughout the resource area is relatively secure from most types of disturbance, and it is assumed that populations of these species are relatively stable in these habitats. Livestock grazing, OHMV activity, mining and other uses have likely impacted raptor populations where degraded habitat or disturbance has resulted in reduced prey base, loss of nesting habitat or nest abandonment. Wildfire has had a dramatic impact on raptor habitat within the Bruneau Resource Area portion and, to a lesser degree, within the Owyhee Resource Area portion of the SRBOPNCA. Fire has converted thousands of acres of shrub dominated habitat to annual grassland which has reduced the diversity and density of nongame species and the raptor prey base within the SRBOPNCA.

Other Nongame Wildlife

Very little habitat, population inventory or monitoring information is available for other nongame species within the ORA. Bats, amphibians and neotropical migrant birds are three groups of nongame wildlife that are of special concern because of significant and, in many cases, widespread population declines. Although the cause(s) of bat and amphibian declines are not as well understood, declines in many species of neotropical migrants and possibly some bats are attributed, at least in part, to dramatic losses of wintering habitat in Mexico and Central and South America. This is often coupled with the loss, deterioration and/or fragmentation of breeding habitat in the United States and Canada. The loss and pollution of wetlands and increased exposure to ultra violet radiation are some of the suspected causes of amphibian population declines while pesticides and increasing disturbance of caves, mines and other roosts and hibernacula are other likely causes of declines in many bat populations.

Much of the resource area is estimated to be in an early seral stage which would indicate that the numbers and diversity of nongame and other wildlife are probably well below potential. Riparian/aquatic habitats support the greatest density and diversity of nongame and other wildlife species (see Table WDLF-1) and these habitats are generally in the most degraded condition throughout the resource area. Livestock grazing is the most widespread cause of unsatisfactory upland and riparian habitat conditions, although localized OHMV and other recreational activities, mining, vegetation treatments, drought, fire and subsequent invasion of exotic annual vegetation have also contributed.

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Fishery Habitat

There are 15 fish species found in the resource area, excluding the Snake River. Twelve of these species are native and 3 species have been introduced. See Table FISH-1. The most abundant species are redband trout, speckled dace, bridgelip sucker, and redside shiner. There are two special status fish species; redband trout (*Oncorhynchus mykiss gairdneri*) and white sturgeon (*Acipenser transmontanus*). Redband trout are the most widespread game fish in the Owyhee Resource Area. It is a BLM sensitive species and a State listed species of special concern. The Idaho Fish and Game Department (IDF&G 1990) manages redband trout as a wild trout to preserve its genetic integrity and does not currently plant hatchery rainbow trout in waters containing redband trout. A list of previous fish plantings is shown in Table FISH-2. White sturgeon are found in the Snake River along the northern boundary of the resource area. It is a BLM sensitive species and a State listed species of special concern. White sturgeon is managed under "no harvest" regulations by IDF&G, however, sport fishing is allowed with a permit.

Fishery habitat in the resource area is composed of perennial and intermittent rivers and streams and reservoir habitats. There are no natural lakes capable of supporting a fishery in the resource area. There are about 500 miles of riverine habitat and a limited number of surface acres of reservoir habitat. Most of the habitat exists as perennial rivers and streams providing year round habitat. Intermittent streams are used as spawning habitat during the high water period and provide isolated pool habitat during the low water season. Intermittent streams are vital in maintaining aquatic biodiversity by providing habitat for nongame species. Reservoir habitats are primarily water storage facilities for the irrigation of private lands. These reservoirs provide habitat for fish only during surplus water years. When reservoir habitat is maintained for more than one year, large trout can be produced.

An inventory of fish habitat within the resource area was first conducted in 1976. Subsequently, some of these streams have been re-inventoried and some additional streams have been evaluated. In addition to these efforts, a fish habitat survey was conducted on Jordan Creek in 1988 in conjunction with the Stone Cabin Mine project. A list of fish densities by species is presented in Table WATR-5. Resource area wide, 87% of the stream miles inventoried were found to be in unsatisfactory condition. Approximately 61% of the area's streams have been inventoried. See Table RIPN-1 and Map FISH-1 for stream reaches with fish habitat condition classifications.

In the Snake River drainage, irrigation diversions, livestock grazing, road construction and historic mining have combined to reduce streamflows and alter stream channels and riparian communities on many streams in this area, resulting in impacts to fish habitat.

In the Jordan Creek/Boulder Creek drainage, primary land management impacts include historic mining, livestock grazing, and more recently, outdoor recreation. Reaches of Jordan Creek and its tributaries that have historical mining use produce runoff with an extremely low pH. This water can have a pH as low as pH 3.5 which is well out of the pH range of 6.5-9.0 that is needed for the survival of aquatic life. This situation becomes especially critical during low flow periods.

The Boulder Creek drainage has short reaches of restricted canyons that are inaccessible to livestock and have satisfactory fish habitat. This situation also occurs in lower Combination Creek, and in short sections of Trout Creek, Rose Creek, Josephine Creek, Rock Creek, above Triangle Reservoir, and Louisa Creek just below Louisa Reservoir.

In the Owyhee River drainage, irrigation diversions and livestock grazing have had the greatest impact to stream channels, riparian vegetative communities and associated fish habitat. Irrigation diversions occur primarily on private land but impact aquatic life on downstream public lands especially during low flow periods. Livestock grazing problems generally occur when cattle have unrestricted access to streams.

Throughout the resource area, the primary management concern relating to fish communities is the condition of riparian areas which in turn support pool and riffle habitat, instream cover, cooler water temperatures, and channel substrates free of excessive fine sediment deposition. The condition of riparian areas and aquatic habitat also helps determine the diversity and quantity of aquatic macroinvertebrates which constitute an important source of food for fish. Livestock overgrazing is the primary source of impacts to riparian areas. Secondary impacts are upstream water diversions, historic mining activities, and recreational use. Recreational impacts primarily occur in areas where other uses have previously degraded habitat. A shift to warm water tolerant species such as suckers, dace, and shiners and away from salmonid species like redband trout is projected to occur in streams with degraded riparian areas.

Special Status Species

The Endangered Species Act of 1973 requires a) that all Federal departments and agencies utilize their authorities to conserve species, subspecies or populations of plants and animals officially listed by the Secretary of the Interior or Secretary of Commerce as Threatened or Endangered; b) Federal agencies to ensure that the continued existence of listed species is not jeopardized and that designated "Critical Habitat" of listed species is not destroyed or adversely modified; c) consultation with the U. S. Fish and Wildlife Service or National Marine Fisheries Service if it is determined that any BLM action may adversely affect a federal candidate or Threatened or Endangered species or its Critical Habitat; d) conference with USF&WS if it is determined that an action may affect a proposed, listed Threatened or listed Endangered species.

Special Status Plants

The Owyhee Resource Area currently contains 31 species or varieties of special status plants. All are included on the Idaho Native Plant Society (INPS) and BLM lists of sensitive plant species. There are currently no Proposed, listed Threatened, or listed Endangered plants known from within the Owyhee Resource Area. However, based on the current state of our knowledge, one Federally listed plant, Ute ladies' tresses, is considered by the U.S. Fish and Wildlife Service (FWS) to have potential habitat throughout Idaho. For this reason it is included in Table SPSS-1, bringing the total number of plants on this list to 32.

Table SPSS-1 provides a list of special status plant species known to occur or, in the case of Ute ladies' tresses, with potential habitat in the resource area, along with their current status and key soil and vegetation site characteristics. Limited inventory and monitoring data are available for many of these plant species, but distribution maps and population status are updated as new information becomes available. See Map SPSS-1 for known distributions in the resource area.

All Federally listed Threatened and Endangered species are given full legal protection under the Endangered Species Act (ESA) of 1973, as amended. For all other special status species, it is BLM policy to manage habitat to minimize the need for future listing as Threatened or Endangered. Federal candidate and globally rare species receive a higher priority of concern in the application of management actions than do those denoted as sensitive only. In fact, many of the globally rare species included on SPSS-1 were federal candidates until the nationwide revision of this list by FWS in 1996. However, to minimize the risk of elevating a species to a higher category, all special status species are considered during the review of management actions.

The INPS meets annually with botanists from the BLM, U.S. Forest Service, U.S. Fish and Wildlife Service, Natural Resource Conservation Service, Idaho Department of Lands, Idaho Conservation Data Center and others to review and recommend changes to Federal and INPS lists based on the most recent information. The results of these meetings, known as the Idaho Rare Plant Conference, are recorded and tracked by the Idaho Department of Fish and Game Conservation Data Center.

An additional 15 species not listed in Table SPSS-1 could also be found in the resource area. These plants have been recognized by the Idaho Native Plant Society as "Review" species, defined as "those taxa which may be of conservation concern, but for which we have insufficient data upon which to base a recommendation regarding their appropriate classification". These species are included in the booklet "Rare, threatened, and endangered plants and animals of Idaho" (Conservation Data Center, 1994), or more recent versions can be viewed on the Conservation Data Center internet web page, or in the annual list of results from the Rare Plant Conference.

Of the 31 special status plants known from the resource area, 16 are "globally rare throughout their entire range" (INPS 1998). These are indicated by a "G" in Table SPSS-1. Several of these species occur only on soils derived from volcanic ash and are rare largely because of limited habitat. Examples include smooth stickleaf, Cusick's false yarrow, Owyhee clover, Malheur yellow phacelia, Packard's lomatium, and barren milkvetch. Except for one population of Cusick's false yarrow in Canyon County, the remainder of these species are known only from northwest Owyhee County, Idaho and eastern Malheur County, Oregon. One of the most serious threats to these ash-dwelling plants is the mining of industrial materials such as zeolite and bentonite, which are formed from the weathering of ash. In many cases these materials are the substrate on which the plants grow.

OHMVs are becoming an increasing threat to special status plant species, as this recreational activity increases in popularity (expected increase of 70% over the next twenty years). This is especially true along the Owyhee Front, where lakebed soils are highly varied and consequently support a diverse and unique flora. Half of the special status plants known from the resource area can be found on the Owyhee Front, including four of the globally rare species. The relative proximity of this area to the Treasure Valley and its long riding season due to the low elevation, make it very popular with OHMV users. Between 1987 and 1998, a minimum estimate of ninety miles of new trails have developed in this area. OHMVs are also a serious threat to many of the ash-dwelling endemics listed above. Adverse impacts to special status plants on the Owyhee Front and elsewhere in the resource area have been observed at several locations.

Other potential threats to special status plants include the inappropriate placement of range projects, livestock grazing and salt placement, agricultural trespass, exotic plant invasion (both noxious and otherwise), and land tenure adjustments. Special status plant surveys are conducted prior to all new land disturbing activities or land tenure adjustments. However, livestock permit renewals and the placement of salt or protein blocks have typically been excluded from this process in the past.

Special Status Animals

Special status animals include those listed by the USF&WS as Endangered, Threatened, proposed or candidates for listing as Threatened or Endangered; by IDF&G as endangered, threatened or species of special concern and; by BLM as sensitive. An Endangered species is defined as being in danger of extinction throughout all or a significant portion of its range. A Threatened species is defined as likely to be classified as Endangered within the foreseeable future throughout all or a significant portion of its range. Federal candidate species are those for which the USF&WS has of file sufficient information on biological vulnerability and threats to support proposals to list them as Endangered or Threatened species.

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State endangered and threatened species definitions are essentially the same as the Federal definitions but apply only to the species' Idaho range. Species of special concern are defined as native species which are either low in numbers, limited in distribution, or have suffered significant habitat losses. Sensitive species include 1) species under status review by USF&WS/NMFS, 2) species whose numbers are declining so rapidly that Federal listing may become necessary, 3) species with typically small and widely dispersed populations, and 4) those inhabiting ecological refugia or other specialized or unique habitats. All Federally listed Endangered and Threatened species are given full legal protection under the Endangered Species Act (ESA). For all other special status species, it is BLM policy to manage habitat to minimize the need for future listing as Threatened or Endangered under the ESA.

There are currently 50 special status animal species that are known or expected to occur within the Owyhee Resource Area and this has changed substantially since publication of the Draft RMP. Table SPSS-2 provides a complete list of special status animals along with key habitat associations, status and occurrence. Map SPSS-2 displays known distributions of selected special status animal species. Map WDLF-2 displays California Bighorn Sheep habitat, and Map WDLF-4 displays sagegrouse habitat.

Inventory and monitoring for most special status animals and their habitats within the ORA has historically been hampered by limited funding and personnel. Consequently, for most of these species, very little is known about population/habitat status and trend or the effects of various land use activities on populations or habitats. Information on occurrence and distribution has been acquired from various field guides, published and unpublished studies and surveys, IDF&G Conservation Data Center, and selected species monitoring and incidental observations by BLM and other agency field personnel and the public.

Wild Horse Management

The Wild Free-Roaming Horse and Burro Act (Public Law 92-195, passed in 1971) states "It is the policy of Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment, or death; and to accomplish this they are to be considered in the area where presently found, as an integral part of the natural system of the Public Lands." The Owyhee wild horse herd was inventoried in 1971 with their area of use collectively designated as the Owyhee Wild Horse Herd Area. See Map WHRS-1. The Owyhee wild horse herd has been managed in accordance with the 1978 Owyhee Resource Area Wild Horse Management Plan (WHMP) and the 1981 Management Framework Plan (MFP). These plans established a permanent forage allocation for the maximum number of wild horses allowed, designated minimum and maximum numbers of wild horses to be managed by management area, and established the Sand Basin, Hardtrigger, and Black Mountain Wild Horse Herd Management Areas. See Table WHRS-1 and Map WHRS-1. The Alkali and Whiskey Hill pastures of the Reynolds Creek Allotment (0508) and Sage Hen pasture of the East Reynolds Allotment (0651) and Tyson FFR Allotment (0616) are part of the Wild Horse Herd Areas but have not been managed for horses since the 1981 MFP.

Management levels and forage allocation shown in Table WHRS-1 can maintain a healthy and viable population of wild horses if they are allowed to roam freely and adequate forage remains after domestic livestock use. When wild horse numbers have been less than maximum, the available forage has been temporarily allocated to domestic livestock. There have been short periods during high populations that the horses had difficulty maintaining good health and body weight particularly on winter ranges because of drought conditions and domestic livestock competition for forage. During these periods the horses are stressed, the movement of wild horses into areas outside of the Herd Management Areas increases, and reproduction is affected by fewer foals and/or increased foaling periods.

The Wild Horse Management Plan emphasis has been to gather and remove wild horses at a level and frequency to ensure protection of natural resources and to maintain a balance with other multiple uses (e.g. livestock grazing and wildlife habitat). When the wild horse population was in excess of optimum herd numbers of 178, gathering and removal for adoption was conducted to reduce the herd back to or near its minimum number. Past funding has restricted more frequent removal of wild horses with gatherings being initiated when the population was close to or in excess of 250 head. Since 1992 the wild horse management levels have been based on maintaining a thriving natural ecological balance among wild horses, wildlife, livestock and vegetation rather than the numbers identified in the Owyhee MFP or the Wild Horse Management Plan. Determination for removal of excess wild horses is now based on rangeland monitoring and analysis. See Table WHRS-2. During wild horse gatherings, the wild horses are usually herded into a trap with the aid of a helicopter, which has been the most cost-efficient and least stressful method.

Movement of wild horses away from traditional use areas and/or outside of the management areas has increased over time. The implementation of livestock grazing systems and the development of supporting rangeland improvements (i.e., fences, water developments, and seedings) has modified the wild horse distribution and free-roaming behavior patterns that existed in 1971. See Table WHRS-3 and Maps WHRS-2 and WHRS-3. The grazing system and scheduled closing of gates to control domestic livestock movement confines wild horses to particular allotment pastures over the course of the grazing season. The additional water development has expanded livestock grazing distribution into areas that were predominantly used by wild horses and wildlife. This expansion of domestic livestock has created competition for forage that did not previously exist. The movement of domestic livestock by permittees has, at times, resulted in unintentional disturbance of the wild horses. This along with gates being left open and poor fence maintenance have contributed to undesirable wild horse movement.

Herd Management Areas have received a considerable increase in public use (off-highway motorized vehicles, equestrian riders, hunters, etc.) since 1971 and general recreation use is projected to increase approximately 70% between 1995 and 2015. The 1981 Owyhee MFP identified intensively managed off-highway motorcycle and snow machine use on about 15,266 acres in wild horse ranges (the proposed Murphy ORV Park). In 1987, the Owyhee ORV Plan Amendment identified intensively managed OHMV use on a considerably larger area (about 86,953 acres) within wild horse ranges. The larger available use area combined with a greater number of users has resulted in increased public interaction with the wild horses. That increased interaction is causing direct harassment, indirect disturbances and stress on the wild horses. This interaction is projected to increase as recreation use increases.

Historically, yearlong water for wild horses was not a problem. However, since implementation of grazing systems, development of rangeland improvements and increased public interaction with the wild horses, problems now exist. Pastures have been created where the only reliable sources of water are water pipelines that are only on during the grazing period for domestic livestock. Other pastures have been created where the only dependable water is on State or private lands. Development of water sources on or near slopes or ridge tops that are preferred by wild horses have reduced the distance they have to travel for water. The wild horses may have had an adverse impact in riparian areas in the past which could continue in the future.

Habitat studies have been established and analyzed to evaluate the upland and riparian vegetative resources. Numerous study sites have been established in the HMAs located predominantly in areas preferred by domestic livestock and/or wild horses. This data collection determines the effect of wild horses on the rangeland and the effect other consumptive uses have on wild horses.

Winter ranges, which are crucial areas during a stressful period of the year, have been identified for each HMA. See Table WHRS-4 and Map WHRS-4. Winter snow typically forces the wild horses to lower or mid elevations between December 15 and March 1. Assuring adequate forage and water, and providing for uninterrupted distribution and movement is important for a healthy and viable herd of wild horses.

The Sands Basin, Hardtrigger and Black Mountain wild horse herd areas are all within areas identified as having moderate mineral potential. See Map LOCM-2. Development of locatable mineral resources has been low to-date in these areas and has had little impact on the wild horses.

Identifiable characteristics exist in the wild horse herds today that indicate quality wild horses were introduced which upgraded the herds prior to the passage of the Act. The quality characteristics (color, conformation, blood-lines etc.) have been preserved through managing the population. During past gatherings, some wild horses with desirable traits have been moved between HMAs to prevent inbreeding, and at the same time, maintain a proper sex ratio. Table WHRS-5 illustrates a sampling of gathered wild horses in November of 1997 showing population dynamics. Periodic removal of young studs and poor quality older mares and relocation of horses has maintained quality in the herds. The present-day wild horses usually stand 13 to 16 hands high and weigh 750 to 1,200 pounds. The wild horses from these herds have been very adoptable. For example, all wild horses removed in 1991 and 1997 were adopted at the Boise horse corrals in less than one week.

Livestock Grazing Management

The stated purposes of the Taylor Grazing Act are "To stop injury to the public grazing lands by preventing overgrazing and soil deterioration; to provide for their orderly use, improvement, and development; to stabilize the livestock industry dependent upon the public range; and for other purposes."

The Federal Land Policy and Management Act of 1976 (FLPMA), directs the Secretary of the Interior to develop, maintain, and revise land use plans for public lands and to determine which lands remain available for domestic livestock grazing. It also requires that the public lands be managed in a manner that will provide forage for domestic animals. It provides for periodic inventory of public lands and requires the Secretary to prepare and maintain an inventory of public land resources and their values. This inventory is to be kept current to reflect changes in conditions. FLMPA also mandates multiple-use management on a sustained yield basis and directs the Secretary to consider present and potential uses of the public lands and the relative scarcity of the values involved and availability of alternative means and sites for realizing these values.

The Public Rangelands Improvement Act of 1978 (PRIA), provides policy and commitment to manage, maintain, and improve the condition of the public rangelands so that they become as productive as feasible for all rangeland values in accordance with management objectives. It directs the Secretary to develop and maintain an inventory of range condition and trend and to keep the inventory current. It provides for and requires an intensive public rangeland maintenance, management, and improvement program for multiple use values.

The Owyhee Resource Area administers livestock grazing on a total of 1,780,196 acres (1,322,981 public land acres). There are 1,769,799 acres (1,314,470 public land acres) within Idaho, 1,662 acres (all public land) in Nevada (one allotment), and 8,735 acres (6,849 public land acres) in Oregon (seven allotments). Additionally, in the southern part of the resource area, livestock grazing on 3,472 public land acres (one allotment) is administered by Nevada, and livestock grazing on 1,834 public land acres (one allotment) is administered by Bruneau RA, and these are not addressed (for livestock grazing purposes only) in this planning effort.

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There are currently 154 grazing allotments. Licenses for grazing in these allotments are issued annually to 73 permittees. The 154 allotments are managed under three management categories: 74 allotments categorized as Intensive (I), 13 allotments as Less Intensive Management (LIM) and 67 allotments as Manage with Private Lands (MPL).

Current active preference for livestock is 135,116 animal unit months (AUMs). There are an additional 42,037 AUMs in suspended nonuse. Average actual use for the years 1988 through 1997 was 96,676 AUMs. Table LVST-1 shows livestock, wildlife and wild horse forage allocations by allotment. It also shows average actual use by livestock for the 10 years from 1988-1997. Table LVST-2 shows acreages by ownership status for each allotment. Appendix LVST-1 shows current active preference, suspended nonuse, total active preference and average actual use by allotment as well as the wildlife and wild horse forage allocations.

Rangeland developments have been completed to provide livestock forage, improve livestock distribution, and to provide for more intensive management of livestock through implementation of grazing systems. Range developments completed to date are shown in Table LVST-4. Grazing systems or acceptable grazing practices may have been developed within the framework of Allotment Management Plans (AMP) or as a result of decisions or other agreements. The current grazing systems are shown in Table LVST-1.

All allotments will undergo an assessment or evaluation as monitoring data are collected. The assessment process involves analysis and interpretation of the available data and evaluation to determine if current management activities are meeting or making significant progress toward meeting resource management objectives contained in land use plans or other documents and the standards for rangeland health. Standards for Rangeland Health and Guidelines for Livestock Grazing Management are in Appendix LVST-2. If progress toward meeting resource management is not adequate, recommendations for changing management, objectives, monitoring or other components are developed. The evaluation and recommendations are utilized to develop or amend grazing systems or Allotment Management Plans (AMPs).

Resource concerns have been identified for each allotment, and the management objectives developed during this RMP process have been applied to the specific concerns identified for each allotment. These concerns and objectives address high erosion potential, upland ecological condition, juniper encroachment, noxious weeds, water quality, riparian/wetland ecosystems, crucial big game winter habitat and other wildlife considerations, special status plant and animal species and wild horse management. Additional management considerations address congressional and administrative special designations including Wilderness Study Areas, suitable Wild and Scenic Rivers, Areas of Critical Environmental Concern, National Historic Districts and the Snake River Birds of Prey NCA. See Appendix LVST-1 for resource concerns, management objectives and management considerations by allotment.

Fire Management

BLM policy requires that wildfires have appropriate suppression action taken. Appropriate actions are based upon analysis consistent with land management objectives. Fire suppression actions must be planned and executed to minimize suppression cost and resource losses and to be consistent with management objectives. No wildfire situation, with the possible exception of threat to human life, requires unnecessary exposure of firefighters and equipment to threatening situations. Whenever multiple fires occur priorities will be determined by the use of the LSRD Fire Management Plan (FMP) and by value-at-risk. The FMP and the value-at-risk are both predetermined, and evaluate fires for resource damage, suppression cost, net resource value change and management objectives.

Structural firefighting is not the functional responsibility of the Bureau. Bureau assistance in suppression of structural fires may only be performed on an emergency basis to save lives or to keep the fire from spreading on to public lands. The Bureau cooperates with adjacent landowners to suppress wildfires threatening public resources where efforts are cost effective and the results will enhance BLM's fire management program. Only trained and qualified Bureau personnel are assigned to fire management duties.

Lower Snake River District policy is to suppress wildfires with the least amount of surface disturbance possible. Whenever burning conditions and terrain are such that direct attack is not feasible, the suppression strategy is to burn out from existing natural fire barriers, such as roads, and establish control points.

Surface disturbing equipment, such as bulldozers, are utilized in accordance with the Fire Management Plan. First priority is clearing of existing roads and second priority is construction of new control lines. Surface disturbance will be limited to the absolute minimum in riparian areas. No mechanical surface disturbing equipment will be used on areas containing known or suspected cultural values, identified paleontologic sites or sensitive areas. In the Owyhee Resource Area, bulldozer use is authorized by the Area Manager.

Full suppression, and prescribed fire will be conducted using the Fire Management Plan (FMP), general Prescribed Fire Management Plan and general Wilderness Study Area Fire Management Plan. In the event of multiple fires within the resource area the suppression priority will be as follows: 1) Silver City area, 2) crucial wildlife habitat, and 3) riparian habitat areas.

Wildfires that occur in areas identified for prescribed fire may be allowed to burn if that area is scheduled for burning. The wildfire burning conditions must meet the prescribed fire plan conditions, including expected size, or the fire will be suppressed. Proposed prescribed fires may be modified, postponed or cancelled in areas where past prescribed fire projects and wildfires could cause significant cumulative impacts to wildlife or watershed conditions.

Wildfires will be evaluated for emergency fire rehabilitation and project plans will be submitted where feasible. Emergency fire rehabilitation plans will include appropriate seed mixtures to replace wildlife habitat that has burned. All grazing licenses issued that include areas recently burned and/or seeded will include a statement concerning the amount of rest needed in the burned area. Normally two years of rest from livestock grazing after a wildfire will be necessary to protect the area. The rested area may include remnant stands of desirable grass, forb or shrub species that survived the fire.

All fire activities in wilderness study areas (WSAs) will avoid unnecessary impairment of an area's suitability for designation as wilderness. Suppression actions within WSAs will be in accordance with Bureau and District guidelines for Wilderness Interim Management Policy.

The Fire Management Plan (FMP) developed at the district level is the basis for funding the fire management program. The FMP addresses all aspects of the fire management program, incorporates an economic analysis, and is integrated with the Bureau planning process through the RMP.

The FMP uses fire management zones to identify broad vegetation communities and objectives for each zone for managing fire suppression. Within the Owyhee Resource Area four fire management zones, with seven subsections, are identified. See Map FIRE-1 for the location of each zone. Objectives for the four FMZ's are to: 1) suppress all wildfires on or threatening public lands in an attempt to meet allowable burn acreage identified in the FMP, 2) take appropriate action on all wildfires according to conditions and in consideration of the least cost plus net resource value change, and 3) to manage for the most effective methods of suppression that are the least damaging to the resources and environments while requiring the least expenditure of public funds. Fire Management Zones are described in Appendix FIRE-5.

All the ecosystems, or vegetative communities, within the resource area have evolved and adapted to specific fire regimes. Active suppression and a lack of fine fuels have resulted in large areas with a greater proportion of vegetation in the older age classes, with less understory vegetation, which are more susceptible to insect and disease infestation. In the case of the western juniper, encroachment from climax juniper stands into the sagebrush communities is continuing. In the lower elevations, cheatgrass has invaded into the sparse, arid desert shrub communities. Wildfires in the cheatgrass areas occur more frequently burning the few native plant communities remaining with the cheatgrass areas.

Between 1980 and 1998, wildfires burned about 99,347 acres within the resource area. This was an average of 7.4 fires per year with an average size of 704 acres. About 1,192 acres, or 1% of the 99,347 acres burned, were re-burns. Re-burns are those areas that have burned more than once during the period. The average cost of fire suppression was $11 per acre. The average cost to suppress each fire was about $7,941 The cost figures are suppression costs only and do not reflect resource damage costs. See Table FIRE-1 for a summary of fire occurrence and costs.

Lightning fires account for about 44 % of the fire occurrences within the resource area, burning over 75,487 acres (76% of the total 99,347 acres) since 1980. The cost of fire suppression for lightning-caused fires averaged $6 per acre. The average cost per fire was $7,725. See Table FIRE-2 for additional data. Human-caused wildfires are the cause of about 56% of the fire occurrences with 23,860 acres burned (24% of the total 99,347 acres) for the 19-year period. The cost of fire suppression for human-caused fires averaged $23 per acre. The average cost per fire was $8,667. See Table FIRE-3 for additional data.

Prescribed Fire

The first prescribed fire projects in the resource area were the Juniper Mountain Trials undertaken by the University of Idaho in 1979. Between 1981 and 1995, 46 prescribed fire projects were planned, covering about 61,115 acres. Actual burning covered about 22,259 acres, or 36% of the planned acreage. The resource area staff planned 8 to 12 prescribed burn projects per year between 1981 and 1984. After 1984, this was reduced to one to two prescribed burns per year. General resource guidance for prescribed fire in found in the BLM manual H-9214-1, Prescribed Fire Management Handbook, (January, 1998). See Appendices FIRE-1 and FIRE-2 and Table FIRE-5 for additional fire information.

Since 1984, prescribed fire costs have averaged $8 per acre in the resource area. Most burning has been in the seral juniper invasion stands within the Owyhee Plateau.

Fire in Wilderness Study Area

Thirteen wilderness study areas, totaling over 294,000 acres, are within the resource area. General resource guidance including fire management for WSAs is provided in the BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP) H-8550-1, (1987). A general wilderness fire management activity plan has been prepared to guide both natural and human-caused wildfires. See Appendices FIRE-3 and FIRE-4 for additional information.

Within the 13 WSAs in the resource area, 12 wildfires have occurred since 1980. These WSAs had 3 human-caused fires, burning about 313 acres, and 9 lightning-caused fires. One fire in 1985 burned about 24,000 acres of which about 50%, or about 12,000 acres, was within a WSA. The total acreage burned within all the WSAs was about 13,143 acres, with about 1,600 acres per fire for the 12 fires. Fire behavior is very predictable within the 13 WSAs where enough vegetation is found to carry a fire. A slow rate of spread, low to moderate intensity, and some spotting (in juniper areas) are characteristic of fires within these WSAs. See Table FIRE-6 for additional WSA fire data.

Fire Rehabilitation

The objectives of the Emergency Fire Rehabilitation (EFR) program are to mitigate, in the most cost-effective and expeditious manner possible, the adverse effects of fire on the vegetation-soil complexes, the loss of water control and deterioration of water quality, and the detrimental alteration of crucial wildlife habitats. General guidance for fire rehabilitation are found in BLM manual H-1742-1, Emergency Fire Rehabilitation (EFR) Handbook, (July, 1998).

Most of the resource area is located in the higher elevations (above 4,500 feet) where native vegetation will respond favorably to fires. Fire rehabilitation will continue at the same level as in the past. Equipment and workforce used in suppression may also be used for emergency restoration of damage (such as rehabilitating firelines or repairing burned fences) caused by suppression activities or the wildfire.

About 21,993 acres burned by wildfire in the resource area have been rehabilitated over the last 16 years, all in big sagebrush communities.

Fire rehabilitation projects

- Sinker Butte Fire; 9/18/81; 2,354 acres; T2S, R1W.
- Horse Basin Fire; 8/7/84; 4,133 acres; T16S, R2W.
- Garat Fires; 7/7-11/85; 5,085 acres; T15,16S, R2,3W.
- Castle Creek Fire; 8/8/90; 10,000 acres; T7S, R1W.
- Diamond Creek Fire; 9/11/94; 421 acres; T4S, R3W.
- Rabbit Creek; 8/12/96; 1,000 acres; T3S, R3W.

Lands

Land ownership in tne Owyhee Resource Area is depicted below and displayed on Map LAND-1. The data shows that about 75% of the resource area is under Federal ownership administered by the Bureau of Land Management.

Land Status for Owyhee RMP:

Land Ownership (Idaho Only)

1,319,651	Public Land (BLM administered)
137,706	State of Idaho Lands
322,048	Private Land
1,779,405	Owyhee Resource Area Total

In addition to lands located within the resource area in Idaho, the Owyhee Resource Area administers livestock grazing on additional lands located in both Oregon and Nevada. The lands on which the resource area administers livestock grazing are shown below.

Livestock Grazing Administration

Total	Public Land Only	
1,617,582	Idaho	1,305,611
8,756	Oregon	6,564
1,800	Nevada	1,800
1,628,138	Total	1,313,975

[redacted]

Livestock grazing on 4,320 public land acres in the southern part of the resource area in Idaho is administered by Nevada. These 4,320 acres are not included in the numbers shown above for livestock grazing administration but are included in the numbers shown for land ownership.

Access

Access in the resource area is generally good. As the population increases, the demand for use of the public lands is also increasing and the need for legal public and administrative access to some areas is increasing. See Map LAND-4 for identified access needs.

Rights-of-Way

Rights-of-way are primarily for distribution lines to individual buildings and facilities, communication sites, residential and rural access roads, ditches, canals and reservoir sites. One aerial 500 Kv transmission line traverses the northern portion of the resource area in an east-west direction. A distance of one mile on either side of this powerline is identified as a preferred route for additional facilities in this area.

A buried natural gas pipeline traverses the southeast corner of the resource area in a north-south direction. A distance of one half mile on either side of this pipeline is identified as a preferred route for additional facilities in this area.

Communication Sites

There are ten communication sites in the resource area. South Mountain is well developed with a BLM fire lookout and radio repeater. War Eagle Mountain is well developed and has two sites with multiple users in one building. Cinnabar Mountain has one block building shared by BLM and an amateur radio club, a block building authorized to the State of Idaho, and an area reserved for a commercial site. Wilson Peak is minimally developed with two users on site. Juniper Mountain, Black Mountain, Swisher Mountain and The Rock all have small sites that are local government or nonprofit. None of these sites have electrical power.

French John Hill has two commercial sites and electrical power. French John II is a high-power FM site and also has electrical power.

Withdrawals

There are currently 17 withdrawals covering 73,181 acres that have been withdrawn from one or more uses through various authorities. Because some of the withdrawals overlap, 68,528 acres are actually affected. Most of these withdrawals are administered by the Bureau of Reclamation and include lands adjacent to the Snake River. Withdrawals are identified for public water reserves, reclamation projects, Silver City, the Snake River Birds of Prey National Conservation Area, a power site classification and a power project. See Table LAND-2 for a list of existing withdrawals.

[redacted]

Locatable Minerals

The history of the extraction of locatable minerals in the resource area began with the discovery of gold in the Owyhee Mountains in 1862. Subsequent exploration and mining led to the establishment of seven mining districts within the resource area. These are the French, Carson, DeLamar, Flint, Castle Creek, Steele, and South Mountain Mining Districts. These mining districts are shown on Map LOCM-1.

As of August 17, 1998, there were 1160 active mining claims in the Owyhee Resource Area. While the majority of these mining claims are clustered in the historical mining districts, many claims have been located for mineral commodities that were either unknown or noncommercial in the 19th century.

One large precious metal mine is currently active in the Owyhee Resource Area. This is the DeLamar Mine operated by Kinross in the historical DeLamar Mining District. The mine began operations in 1976 and has been continually operating to the present. Kinross is the fourth owner and operator of the DeLamar Mine. On an average day, about 35,000 tons of rock are mined and 3,000 tons of ore are milled and vat-treated with cyanide solution for the extraction of gold and silver. The mine has a workforce of over 150 employees and is a major economic presence in the resource area. Kinross' Stone Cabin mine is located on nearby Florida Mountain and has been operated as a satellite to the DeLamar Mine since 1995. The ore is truck-hauled and processed at the DeLamar Mill. Kinross announced in October 1998 that both the Stone Cabin and DeLamar mines will be temporarily closed due to low precious metal prices. They will be reopened when market conditions improve. All impacts pertaining to the mines have been addressed in the Stone Cabin EIS and other environmental documents.

Dozens of small operations exist in the Silver City Range, mostly prospecting activities by individuals and small companies. Interest in looking for new reserves of gold and silver varies from year to year, depending on the price of precious metals.

CARCO is currently mining bentonite from a deposit of altered volcanic ash within the Chalk Hills Formation near Castle Creek in the northeastern part of the Resource Area. The clay is used in the paper processing industry. Reserves sufficient to last for at least ten years have been developed by the company.

Castle Creek Minerals has opened a new industrial minerals mine about one mile north of CARCO's operation. Castle Creek is currently mining a high-grade deposit of oolitic limestone within the Chalk Hills Formation which is being used for everything from soil additives to adsorbents for industrial waste. The market for this product has expanded to include the northwestern United States and western Canada. Sufficient reserves exist in the area to last for at least 20 years.

Large deposits of other industrial minerals exist in the resource area, associated with the sedimentary rocks of Poison Creek and Chalk Hills Formations. These include bentonite, oolitic limestone, diatomite, and zeolite. Reserves of some of these deposits are massive and will likely be developed as markets for these minerals continue to expand.

Areas of high mineral potential are shown on Map LOCM-2. Two areas surround the active DeLamar and Florida Mountain mining operations where gold and silver are being produced. The other area of high mineral potential lies along Castle Creek where sedimentary rocks containing large deposits of industrial minerals are presently being mined. Due to the lack of a mineral inventory, the rest the resource area is considered to be of moderate potential for precious metals (gold and silver) from the Owyhee Mountains south across the Owyhee Plateau to the Nevada border (Diggles et al, 1989). The area between the Owyhee Mountains and the Snake River is considered to be of moderate potential for industrial minerals (bentonite, zeolite and oolitic limestone).

Fluid Minerals

Oil and Gas

In the Owyhee Resource Area, there is very little positive evidence to indicate the occurrence of petroleum. There are two major obstacles to assessing the oil and gas potential of the Resource Area: (1) pervasive cover of volcanic rocks; and (2) lack of the subsurface data. A surface mantle of volcanic rocks does not necessarily negate the possibility of oil and gas source rocks, reservoirs, and traps at depth. The nearest oil and gas production is in Pine Valley, Nevada, located 120 miles south of the Idaho State line. Regardless of the Nevada production, the lack of obvious source and reservoir rocks favorable for petroleum generation and accumulation does not paint an optimistic picture for the oil and gas potential of the Owyhee Resource Area.

Six exploratory wells have been drilled in the vicinity of the Owyhee Resource Area. No positive indications of oil and gas accumulations were encountered in these holes. The nearest direct indications of petroleum potential (gas and oil shows) were noted in two wells in northern Nevada, 30 miles southeast of the Owyhee Resource Area. Exxon's 1985 Four Mile Butte Federal No. 1 about 25 miles south of the Owyhee Resource Area penetrated a sequence composed almost entirely of rhyolitic tuffs to a total depth of 14,464 feet. A flurry of oil and gas leasing activity in northern Nevada and in the southern part of the resource area coincided with Exxon's former interest in this area.

Oil and gas potential can be qualitatively judged on the basis of the presence or absence of basic criteria that include: thickness, source rocks, reservoir rocks, traps, thermal maturation, direct indications of petroleum, and geologic history (see Appendix FLUM-1). Down warping of the western Snake River Plain has provided a mechanism for the accumulation of significant thicknesses of Tertiary sedimentary rocks with some potential for petroleum. A substantial thickness of Tertiary sedimentary rocks are intercalated with volcanics in the resource area, particularly adjacent to the Snake River Plain.

No favorable Paleozoic or Mesozoic marine sedimentary rocks or Paleocene bitumen-rich lacustrine rocks, which could provide possible hydrocarbon source and reservoir rocks, are exposed in the resource area. The nearest exposures of Paleozoic sedimentary rocks are over 20 miles southeast of the resource area in northern Nevada. Organic-rich beds within Tertiary lacustrine units may offer some minor potential as petroleum-source rocks on the margin of the Snake River Plain or at depth beneath the volcanics.

The presence of source rocks and their level of thermal maturation, reservoir rocks, and traps cannot be confirmed beneath the volcanic mantle. The extent of volcanic activity is pervasive enough that it is possible that even if suitable source rocks exist beneath the volcanic cover, any hydrocarbons may have been driven off or be postmature for petroleum production. No direct indications of hydrocarbon presence, such as oil and gas seeps, petroleum shows or bitumen-bearing rocks, are known in the resource area.

Persistent and extensive volcanic activity dominated the resource area throughout the Cenozoic. The location of the Juniper Mountain volcanic center in the southern part of the resource area that erupted voluminous rhyolite could have easily driven off any accumulated hydrocarbons.

For planning purposes, the resource area has been classified for petroleum potential. See Map FLUM-1. The classification scheme followed is outlined in Appendix FLUM-2. The resource area is classified as follows:

Low potential/Certainty level B (L/B) - This area coincides with thick accumulations of Tertiary sedimentary rocks on the margin of the western Snake River Plain. Exposures of the Succor Creek Formation, which contain some potential source rocks, are also included in this category. Some small accumulations of gas could exist within the Tertiary sediments in these areas.

[redacted]

Low potential/Certainty level A (L/A) - This area coincides with the southern part of the resource area. Based on the dominance of the Juniper Mountain and Little Jack's volcanic centers, and the lack of any identifiable petroleum source rocks exposed within the resource area, petroleum occurrences in this area are considered to be unlikely. Since it is conceivable that the volcanic mantle conceals source and reservoir rocks, minimal potential cannot be ruled out.

Zero Potential/Certainty level D (Z/D) - This area coincides with the granitic core of the Owyhee Mountains and the area projected to have granitic basement to the south. The location of Anschutz Federal No.1, that bottomed in granite is included in this area. Eocene to Cretaceous age granodiorite and quartz diorite and adjacent post-mature metasedimentary rocks near South Mountain are included in this area. All evidence points to a lack of source rocks, traps, and other essential characteristics necessary for the occurrence of oil and gas.

While there has been substantial past leasing activity in and adjacent to the resource area, particularly in the late 1970's to early 1980's, only minor exploratory drilling resulted. There are currently no authorized or pending oil and gas leases or applications in the resource area.

An important consideration for land-use planning is the availability of lands for leasing, exploration, and development. It is important to emphasize that while the low (or even zero) potential level indicates a probability of minimal exploratory activity, lands should not be restricted on this basis alone. The Supplementary Program Guidance states "lack of potential or lack of industry interest is not to be considered a basis for closing lands or imposing constraints on development". The possibility always exists that future geologic research and exploration may reveal new insights and lead petroleum exploration into areas of unconventional petroleum geology. In areas mantled by volcanic rocks, the possibility of the presence of underlying petroleum source and reservoir rocks cannot be ruled out with complete certainty without adequate drill data.

See Appendix FLUM-3 for a detailed geologic report on the oil and gas potential in the Owyhee Resource Area.

Reasonably Foreseeable Oil and Gas Activity

Based on the low potential for the occurrence of petroleum within the Owyhee Resource Area, reasonably foreseeable oil and gas activity in the area is not projected to be significant within the next 20 years. It is projected that oil and gas activity will consist of the issuance of some competitive and over the counter leases, a few geophysical surveys, and perhaps the drilling of one or two exploratory holes.

Because of the low potential for the occurrence of hydrocarbons, we do not project the discovery of a producible oil and gas field in the Owyhee Resource Area during the next 20 years; however, to comply with the Supplemental Program Guidance for Fluid Minerals (Manual Section 1624.2), the potential surface impacts associated with the discovery and development of a small oil field are outlined in the following section titled "Oil and Gas Exploration and Development Scenario". See Appendix FLUM-4 for a description of typical oil and gas exploration and development activities.

Oil and Gas Exploration and Development Scenario

Exploration Scenario

1. One to two exploration holes would be drilled during the next 20 years.
2. Exploratory drilling is most likely to be conducted within those parts of the resource area classified as "L/B". This is the highest level of potential for oil and gas in the Owyhee Resource Area.
3. The average area needed for each drill pad would be 2 acres. An additional 2 acres would be needed for support facilities.

[redacted]

4. The average length of road constructed for each drill hole would be 5 miles.
5. The roads would have a gravel surface with an average width of 20 feet. The total surface disturbance width would average 40 feet.
6. Each well would be drilled over a period of less than 12 months.

Surface Disturbance of Exploration

1. The total area required for drill pads and support facilities would be 8 acres.
2. The total area required for roads would be 50 acres.
3. The total surface disturbance caused by exploratory drilling over the next 20 years would be 58 acres.

Field Development and Production Scenario

1. Small deposits of oil or gas discovered in the Owyhee Resource Area would not be economical to develop. The minimum size that would be economical is a field containing reserves of 365,000 barrels of oil capable of producing an average of 100 barrels of oil per day over a productive lifespan of 10 years.
2. One field of the minimum size would be discovered within the Owyhee Resource Area during the next 20 years.
3. Total area of the field would be 200 acres and well spacing would be 40 acres. The field would require four development wells in addition to the discovery well. Each production well would create 2 acres of surface disturbance. This would include all production equipment for the well.
4. Each development well would require 0.25 miles of road. Development well access roads would be graveled and would have a surface width of 20 feet. The width of surface disturbance for roads would average 40 feet.
5. All production would be trucked to refineries located outside of Idaho.
6. All well service requirements would be provided by established service companies located outside of Idaho.

Surface Disturbance of Field Development and Production

1. The total surface disturbance for well pads would be 8 acres.
2. The total surface disturbance for roads would be 5 acres.
3. The total surface disturbance caused by development of the field would be 13 acres.
4. The total surface disturbance caused by exploration and development over the next 20 years would be 71 acres.

Geothermal Potential

For assessment of geothermal potential, the Owyhee Resource Area is divided into two provinces: the western Snake River Plain and the Owyhee Uplands. The western Snake River Plain is a northwest trending, fault-bounded structural depression about 60 kilometers wide. The surface consists primarily of Tertiary and Quaternary lacustrine sediments and basalt flows. The land surface and the rocks generally dip toward the axis of the plain. The Owyhee Uplands borders the western Snake River Plain on the southwest and is formed by the Owyhee Mountains and the Owyhee Plateau. The Owyhee Mountains have a core of Cretaceous granitic rock overlain by Tertiary volcanic rocks. The Owyhee Plateau is underlain principally by Tertiary rhyolite, basalts, and interbedded sedimentary rocks.

[redacted]

Mitchell and others (1980) show 26 thermal water wells and one thermal spring located in the resource area, all within the western Snake River Plain province. The only thermal spring, Givens Hot Spring, has a surface temperature of 47°C and has been developed as a public bathing facility. This constitutes the only known beneficial use of geothermal energy in the resource area. The thermal wells are used primarily as a water supply for irrigation, stock watering and domestic purposes. Of the 26 thermal wells shown in the area, three have surface temperatures greater than 50°C with the highest temperature being 76°C.

These thermal features are probably a continuation of the Bruneau-Grand View geothermal system. In this system, wells that are as deep as 1100 m produce water at temperatures as high as 84.5°C from artesian aquifers in Cenozoic volcanic rocks. The assessment of the geothermal resources of the United States completed by the U. S. Geological Survey in 1978 (Muffler, 1979) indicates that, based on geothermometry, the Bruneau-Grand View geothermal system has a mean reservoir temperature of 107°C. Water at this temperature is valuable for direct use applications, but is not hot enough to be useful for the generation of electricity. Mabey (1983, p. 14) states that although additional deep drilling may discover hot zones in the system, there is no evidence in the existing data to indicate that large volumes of water much hotter than indicated by the geothermometers would be found associated with the Bruneau-Grand View system within 3 kilometers of the surface.

Based upon the preceding discussion, the geothermal potential of the western Snake River Plain province of the Owyhee Resource Area is determined to be high with a D level of certainty. As discussed above, the geothermal potential of this province is suitable for direct-use applications only. The reservoir temperatures are too low for the generation of electricity using current technology.

The Owyhee Highlands within the resource area contain no known geothermal systems. Available data indicate that the Owyhee Uplands province is in a region of abnormally high heat flow; however, no deep holes have been drilled in this area and the geothermal gradient at depth is not known. The principal rhyolitic rock units exposed in the Owyhee Highlands were erupted at irregular intervals, from about 16 million to about 10 million years ago (Ekren and others, 1984), too old to be a heat source for geothermal resources. The geothermal potential of the Owyhee Highlands province is determined to be low with a B level of certainty.

The easternmost part of the resource area was within the former Castle Creek Known Geothermal Resource Area (KGRA). The Castle Creek KGRA was declassified effective February 1, 1986. There are currently no authorized geothermal leases and no pending geothermal lease applications within the resource area.

The geothermal potential of the Owyhee Resource Area is shown on Map FLUM-2. The levels of potential and levels of certainty are from the geothermal potential classification scheme described in BLM Handbook Section H-1624-1, p. III-6 and BLM Manual Section 3031, Illustration 3. This classification scheme is summarized in Appendix FLUM-5.

Other Leasable Minerals

Since there is no known potential in the Owyhee Resource Area for coal or for non-energy leasable minerals, these two mineral resources are not addressed.

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Mineral Materials

The Owyhee Resource Area contains enormous reserves of salable industrial minerals including sand, gravel, rock, clay and decorative building stone. These resources are referred to as mineral materials. The relatively low population base in Owyhee County has restricted large scale development to those that can either be used locally in highway construction or those that can be economically hauled for long distances. The growing population in the Treasure Valley to the north across the Snake River will eventually provide a substantial market for mineral materials mined in the Owyhee Resource Area.

Population growth in southwest Idaho is projected to increase. The demand for salable industrial minerals, particularly sand and gravel, clay and decorative rock is also projected to continue to grow at a rapid rate to keep pace with the ever-expanding population. Owyhee County is becoming a source area for certain types of mineral materials no longer available in quantity from rapidly growing urban areas to the north, particularly Canyon County. Lime, clay and decorative rock are already being mined in Owyhee County for use primarily in the Boise-Nampa-Caldwell area and this use is likely to increase in the foreseeable future as the population continues to grow. Sand and gravel resources, abundant in the resource area, could begin to help meet a regional demand within a few years as local sources to the north are exhausted or zoned out of development.

Current uses for sand and gravel in the resource area are for County road construction and maintenance and for use by the Idaho and Oregon highway departments. Commercial demand for these resources could eventually begin competing for good material sources in the resource area, expanding production and increasing the number of source sites.

There are ten community pits in the Owyhee Resource Area. Seven are for decorative building stone [Sec. 21, T. 2 S., R. 5 W.; Sec. 35, T. 1 S., R. 3 W.; Sec. 13, T. 1 N., R. 4 W. (two sites); Sec. 34, T. 2 S., R. 2 W.; Sec. 29, T. 5 S., R. 5 W.; Sec. 4, T. 1 S., R. 3 W.] Three are for sand & gravel (Sec. 15 and 22, T. 2 N., R. 4 W.; Sec. 32, T. 4 S., R. 3 W.; Sec. 34, T. 2 S., R. 2 W.)

There are about 45,000 acres in the resource area that have been identified as having high potential for mineral materials. See Map MMAT-1 for areas of mineral materials potential. Until a mineral inventory of the Owyhee Resource Area is completed, lands within the Resource Area not considered to have high potential are considered to have moderate potential for salable mineral resources.

There are currently 19 Free Use Permits in the Owyhee Resource Area. Most are issued to the Owyhee County Road Department for materials to be used in road construction, with the remainder to State Highway Departments and the Agricultural Research Station.

Recreation

Recreation Management Area Designations

For recreation planning purposes, all public land is classified either as a Special Recreation Management Area (SRMA) or an Extensive Recreation Management Area (ERMA). Recreation is one of the principal management objectives within SRMAs, while recreation is less intensively managed within ERMAs.

Ten Special Recreation Management Areas (SRMAs) have been identified and established through past planning efforts. The SRMAs total 313,258 acres. The remaining acreage, 1,006,733 acres, is contained in the Owyhee Extensive Recreation Management Area (ERMA). Table RECT-1 lists the existing SRMAs and the ERMA within the Owyhee Resource Area. The existing recreation management areas are shown on Map RECT-2A.

Special Recreation Management Areas (SRMAs)

Blackstock SRMA

The Blackstock SRMA (6,149 acres) consists of rolling plateau lands flanking the western slopes of the Owyhee Mountain Range adjacent to U.S. Highway 95 near the Oregon border. These lands have been used since 1977 as a competitive field dog area by three local dog clubs. The lands are recognized as among the best competitive dog trial areas in the Pacific Northwest because of their topography and vegetation.

Jump Creek SRMA

The Jump Creek SRMA (8,667 acres) encompasses the desert plateau and canyonlands along the Owyhee Front country adjoining the Snake River plain near Homedale. Two streams, Jump Creek on the east and Poison Creek on the west, have cut deep, parallel canyons northward through the plateau. Both streams flow intermittently in their upper reaches from spring snow melt or summer thunderstorms. The lower canyons are both fed by springs. Waterfalls exist in each of the lower canyons. The most well-known and frequented by recreationists is the 60-foot high Jump Creek Falls. The falls provide a physical barrier to upper Jump Creek canyon, which contains one of the best examples of pristine riparian habitat in southwest Idaho. Jump Creek canyon, including 90 acres below the falls, has been identified as the Jump Creek Recreation Site (a total of 465 acres). Below Jump Creek Falls, years of destructive visitor use have left the site marred by spray painted graffiti, trampled vegetation, multiple trail development, widespread littering, and evidence of human waste. The mouth of the canyon has extensive soil damage and vegetation loss caused by off-highway motorized vehicle (OHMV) activity on hillsides. Site development and protection actions began in March, 1988, following completion of the Jump Creek Recreation Site Plan (1988). There is a foot trail to Jump Creek Falls, a parking area, restroom, and information station at the recreation site. The recreation site plan includes construction of a wheelchair accessible trail to the waterfall with a bridge across the creek. Funding has not been available to upgrade the trail for wheelchair access. An estimated 12,500 recreationists visit the site and adjoining lands each year for sight-seeing, picnicking, camping, hiking, hunting, fishing, nature study and OHMV activities.

North Fork Owyhee Backcountry SRMA

The North Fork Owyhee Backcountry SRMA (56,593 acres) is located in the heart of the Owyhee Uplands in the center of the Owyhee Resource Area. The topography of the northern two-thirds of the SRMA is typified by major canyon systems with numerous tributary draws. The canyons are comprised of

[redacted]

thousands of individual rhyolite rock spires or pinnacles intermixed with huge sheer-walled rock monoliths and steep talus slopes covered with juniper and grass-shrub communities. The tributary draws are formed by huge boulders and rock outcrops sprinkled with juniper. The major canyons are the North Fork Owyhee River which flows west toward Oregon, and Current Creek Canyon, which drains to the south. The North Fork Owyhee River and tributary streams are evaluated for national wild and scenic river designation in the Owyhee RMP. In the southern portion of the SRMA, beginning at the southern rimrock of the North Fork Owyhee River Canyon, there is an expansive tableland comprised of shallow sagebrush-covered swales interlocked amongst crumbled rock outcrops dominated by juniper. The North Fork Owyhee Backcountry SRMA is used primarily for backpacking, horseback riding, camping, hunting, fishing, sight-seeing and nature study. An additional 208 acres along the North Fork Owyhee River are recommended as an addition to the SRMA. Visitation levels are currently low.

Owyhee Front SRMA

The Owyhee Front SRMA (181,590 acres) encompasses the plains and low foothills on the northern front of the Owyhee Mountain Range. The Owyhee Front is recognized for quality off-highway motorized vehicle (OHMV) opportunities due to its cool spring/fall weather conditions and dry soil conditions, coupled with a diversity of terrain features. The terrain includes hundreds of miles of primitive roads, trails, and interconnecting sand washes traversing gentle to rugged hills and ridgelines. The area is used for OHMV use year-round and for hunting in the fall. Sight-seeing, hiking, horseback riding, mountain biking, rock hounding, wild horse viewing, and camping also occur.

Conflicts exist between springtime motorcycle use and livestock grazing. Wild horse, wildlife, and sensitive plant conflicts with recreationists are also of concern. Much of the acreage used for the management of wild horses is within this SRMA. Since 1988, the BLM has been installing cattleguards throughout the area to reduce fence cutting and problems associated with open gates. Three OHMV trailheads have been established to provide information and services to recreationists. Since implementation of the Owyhee Off Road Vehicle Management Plan in 1987, authorized OHMV use of the Owyhee Front has been limited to existing roads and trails (including sand washes). This designation has proved ineffective at stabilizing the motorized road and trail network in this popular riding area, as there has been a steady expansion of jeep roads and trails. Staff analysis of the road and trail network in a 50 square mile portion of the Owyhee Front indicated development of over 90 miles of new roads and trails, or an average of 1.8 miles of new trail per square mile of land, from 1987 to 1998. This proliferation of unplanned roads and trails has led to decreased scenic quality, conflicts with sensitive plant populations, habitat fragmentation, erosion, and water quality concerns. There is also some conversion of trails from wildlife or game trails to motorcycle trails, and from motorcycle trails to ATV trails and jeep trails.

Funding for trailhead development was obtained from the Idaho State Off-Road Motorized Vehicle (ORMV) Grant Funds Program. Developed recreation site locations include the Hemingway Butte Trailhead, Rabbit Creek Trailhead, and Fossil Creek Trailhead. Maps of the road and trail system are being developed.

Owyhee Canyonlands SRMA

The Owyhee River flows westward across the southwest corner of Idaho, dissecting the Owyhee Uplands into a landscape of sheer-walled, meandering canyon systems framed by vast expanses of sagebrush-grassland plateau. The deep canyons of the East Fork, the South Fork, and the Owyhee River downstream from the confluence to the Oregon state line comprise the Owyhee River Canyonlands SRMA; 36,839 acres within the Owyhee Resource Area and 5,627 acres within the Bruneau Resource

Area. The East Fork meanders west from the Duck Valley Indian Reservation for 57 miles before joining the South Fork. The South Fork Canyon begins in Nevada and cuts 22 miles northwest before entering Idaho. The South Fork journeys 28 miles through Idaho before joining the East Fork about nine miles from the Oregon border. Except for a few road access points, the area is very isolated.

The Owyhee Canyonlands of Idaho have a national reputation for providing exceptionally scenic springtime float boating opportunities in a highly primitive and pristine setting. Except for several very large rapids associated with rock falls, the character of the river is ideally suited for those seeking wilderness experiences in canoes, rafts, and kayaks. The Owyhee River canyons, plus several tributary canyons, also provide outstanding backpacking opportunities during lower water periods. Hunting for mule deer, bighorn sheep, cougar and upland game birds occurs during the fall or winter months. The canyons are also used for rock hounding, sight-seeing and camping.

The Owyhee River and East Fork Owyhee River were studied under the National Wild and Scenic Rivers Act. The 192 miles of river corridor, including 66 miles of the East Fork and mainstream Owyhee River in Idaho, were recommended suitable for designation in the 1979 National Park Service's Owyhee River Wild and Scenic River Study Final Report. In 1984, Congress designated the Owyhee National Wild and Scenic River for the Oregon portion of the river. To date, no action has been taken on the Idaho portion. The South Fork, which was included in the Nationwide Rivers Inventory, and tributary streams are evaluated for national river designation in the Owyhee RMP. The river corridor is currently managed under the Owyhee River Recreation Area Management Plan (1983).

Silver City SRMA

Nestled in the bottom of the upper Jordan Creek drainage in the heart of the Owyhee Mountain Range is the Silver City SRMA (2,166 acres). It extends from the historic mining town of Silver City downstream along Jordan Creek for a distance of about eight miles. The creek is flanked by the DeLamar, Tennessee, Florida, and War Eagle Mountains. Each year, thousands of visitors travel the road adjacent to Jordan Creek or over the top of New York Summit to visit Silver City's historic sites. Camping, hiking, fishing, OHMV activity, and hunting in the surrounding mountains are also popular recreational pursuits. Winter activities include snowmobiling and cross-country skiing. Recreation facilities in the area include a small campground and several toilet sites, and a number of small undeveloped campsites along the creek. Some of the historic ruins are owned by the BLM, but most properties existed as privately-owned buildings on public lands until 1990 when the building lots were sold to building owners. An Owyhee County zoning ordinance is in place to protect the historic character of the townsite since it is within the Silver City Historic District.

North Fork Canyon SRMA

The Owyhee MFP identified the North Fork as an SRMA (475 acres) due to the area's outstanding recreational values and scenic natural features. Canyon spires of sculptured rhyolite and blocky basalt cliffs tower above a river channel lined with old-growth juniper and mounds of rock rubble. The river provides expert whitewater non-motorized boating opportunities in the early spring and outstanding backpacking opportunities during the summer and fall. Sight-seeing, camping, nature study, hunting and fishing opportunities are also present. A small (seven-unit), developed campground exists within the North Fork Canyon at the North Fork Crossing. The SRMA extends along the river corridor from the Deep Creek-Mud Flat Road crossing of the North Fork Owyhee River downstream to the Oregon border. The North Fork Owyhee River is evaluated for national river designation in the Owyhee RMP. The adjoining eight miles of the North Fork Owyhee River within Oregon were designated as a National Wild River in 1988.

Upper and Lower Deep Creek SRMA

Deep Creek flows south from the Deep Creek - Mud Flat Road for 32 miles before its confluence with the East Fork Owyhee River. During its journey it carves a deep canyon through rhyolite and basalt rock. There are 5,884 acres of this SRMA within the Owyhee Resource Area and 5,918 acres within the Bruneau Resource Area. In its upper reaches, the creek cuts a relatively straight course through lands capped with tablelands of basalt. In the lower reaches, the stream has cut an extremely meandering course where vertical monolithic walls of sculptured rhyolite dominate the landscape. Within this majestic landscape can be found exceptional opportunities for backpacking, nature study, rock hounding, fishing, hunting, and whitewater boating. Some of these recreation opportunities are considered nationally significant. In addition to the acreage along Deep Creek, there are 567 additional acres along a tributary stream, Current Creek, which contribute to the recreational values of the upper Deep Creek area and are currently not within a SRMA. The Owyhee RMP considers adding Current Creek to the Deep Creek SRMA. Deep Creek and Current Creek are also evaluated for inclusion in the National Wild and Scenic River System in this document.

Oregon National Historic Trail SRMA

In 1978, Congress designated the Oregon National Historic Trail as part of the National Trail System to identify and protect the primary route and its historic remnants and sites for public use and enjoyment. The primary route includes the main routes followed between 1841 and 1848. Nationwide, only about 15% of the 2,170 miles of the primary route are still intact. Seven segments of the primary route are designated as components of the Oregon National Historic Trail. Two segments are in southwest Idaho: the North Trail and the Sinker Creek Segments. The Sinker Creek Segment (7,305 acres) is in the northern portion of the Owyhee Resource Area near the Snake River. Most of the Sinker Creek segment is within the Snake River Birds of Prey National Conservation Area. The BLM has marked the Oregon Trail and associated historic route remnants on State and Federal lands with posts placed at 1/4 mile intervals to guide those who hike or drive the trail.

Snake River Birds of Prey SRMA

Located along the Snake River, at the northern periphery of the Owyhee Resource Area, the 7,590 acre Snake River Birds of Prey SRMA lies within the 482,457-acre Snake River Birds of Prey National Conservation Area, established to protect raptors and their habitat. Here, the soils, vegetation, geology and climate have evolved to create a unique natural system that supports the highest known concentration of nesting raptors in North America. Exceptional opportunities abound for recreationists to view birds of prey in their natural environment. Most recreation management activities are concentrated on the north side of the river within the Bruneau Resource Area. Wees Bar Petroglyph Field in the Owyhee Resource Area, a riverside boulder field containing hundreds of prehistoric rock art carvings, is a popular destination for hikers and boaters. The SRMA supports a variety of other popular recreation activities including fishing for bass, catfish and catch and release sturgeon; motorcycle riding and mountain biking; hiking; horseback riding; and boating. The Snake River Birds of Prey National Conservation Area Management Plan (1995) states that the Snake River Birds of Prey SRMA designation will be amended to include the entire NCA. The RMP proposes to enlarge the boundaries of the Owyhee Resource Area portion of the Snake River Birds of Prey SRMA by 45,587 acres, to include all of the NCA land east of Highway 78. The expanded SRMA would include 5,955 acres of the current Oregon Trail SRMA. Future development of this area would conform with NCA planning processes.

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Extensive Recreation Management Area (ERMA)

Owyhee ERMA

The Owyhee ERMA contains 1,006,733 acres extending from the Snake River south along the Oregon border to Nevada. Elevations range from 2,500 feet along the Snake River to over 8,000 feet in the Owyhee Mountain Range. These mountains extend east-west across the northern portion of the resource area. South of the Owyhee Mountain Range the topography is comprised of a highly convoluted plateau known as the Owyhee Uplands. These uplands are typified by numerous steep-walled canyons framed by a mixture of isolated tablelands and long rocky ridgelines. At the southern reaches of the area, the Owyhee Uplands become an open, expansive flat to gently rolling plateau deeply dissected by the deep river canyons contained in the Owyhee River Canyonlands SRMA. The extreme diversity of landforms and vegetation in the ERMA creates a wide range of natural settings in which to enjoy recreation opportunities. Recreation use is widely dispersed and consists mostly of hunting, fishing, horseback riding, rock hounding, nature study, camping, sight-seeing, hiking, OHMV use, and mountain biking. Within the ERMA, there are three areas adjacent to the existing Owyhee Front SRMA that receive significant recreational use, and are considered in this document as potential additions to the Owyhee Front SRMA.

The first area (6,707 acres) adjoins the Owyhee Front SRMA in the vicinity of the lower Fossil Creek drainage, east of Highway 78. Soft sedimentary rock strata have eroded into a convoluted "badlands" topography that features fragile soil and vegetation conditions and abundant paleontological resources.

The second area (21,547 acres), in the Wilson Creek - Squaw Creek area, special management attention is needed to protect a wild horse herd, wintering wildlife, and other resource values, while providing for multiple use.

The third area, southwest of the existing SRMA is a rugged and increasingly popular area that extends to the crest of the Owyhee Front (51,642 acres).

Owyhee Uplands National Back Country Byway

The 103-mile long Mud Flat Road crosses the Owyhee Uplands from Jordan Valley, Oregon, to Grand View, Idaho, and has been dedicated as a National Back Country Byway. The intent of the Byway is to provide for sight-seeing and interpretive opportunities along this major gravel roadway. There are 45 miles of the Byway within the Owyhee Resource Area, with the remainder in the Bruneau Resource Area. The Byway management corridor is one mile in width (1/2 on mile each side of the road), which totals 15,705 acres within the resource area; 2,225 acres of which are within SRMA designations.

Recreation Opportunity Spectrum

All lands within the Owyhee Resource Area have been inventoried to determine their Recreation Opportunity Spectrum (ROS) classification. Lands were classified as either primitive, semi-primitive (nonmotorized and motorized), roaded natural, rural or urban. See Map RECT-1. Classifications were derived from a consideration of five criteria: remoteness, size, evidence of human use, social setting, and managerial setting. See Table RECT-3 for additional classification and criteria information. The total acreage in the Owyhee Resource Area for each ROS classification is shown below. The acreage figures include public, State and private lands.

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Recreation Opportunity Settings

ROS Class	Acres Inventoried	% of Resource Area
Primitive	234,983	13%
Semi-Primitive Nonmotorized	386,150	22%
Semi-Primitive Motorized	794,010	45%
Roaded Natural	177,080	10%
Rural/Urban	187,269	10%
Total	1,779,405	100%

Off-Highway Motorized Vehicle Designations

In 1987, the Owyhee Off-Road Vehicle Management Plan was completed in accordance with Executive Orders 11644 and 11989. This Plan designated all public lands within the Owyhee Resource Area as "open" or "limited" to off-highway motorized vehicle (OHMV) use. No "closed" areas were identified in the Plan, but conditions under which closures could occur were specified. The definitions and current acreage for open, limited, and closed areas are presented below. The current OHMV designations are shown on Map RECT-1A.

Open: 420,434 acres: Off-highway motorized vehicle use is allowed on all public lands without special restrictions, except as otherwise posted.

Limited: 899,557 acres (total): Off-highway motorized vehicle use is limited to existing or designated vehicle routes in accordance with seven (7) possible levels of posted restrictions.

Existing Routes

Limited - Level 1 (L1): 199,224 acres: Off-highway motorized vehicle use is limited to existing roads and to existing jeep, ATV and motorcycle trails year-round, except as otherwise posted. (A planning document would specify notable exceptions, such as recognizing sand washes as part of a trail system.)

Limited - Level 2 (L2): No acreage currently designated. Off-highway motorized vehicle use is limited to existing roads and to jeep, motorcycle and ATV trails year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units.)

Limited - Level 3 (L3): No acreage currently designated: Off-highway motorized vehicle use is limited to existing roads and jeep trails, and to designated motorcycle and ATV trails year-round, except as otherwise posted.

Limited - Level 4 (L4): 538,682 acres: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round.

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Level 4-IMP (O): 110,878 acres: These areas are designated as L4-IMP only because of the BLM Wilderness IMP. If released from the IMP by Congress, these lands will be managed as "open".

Limited - Level 5 (L5): No acreage currently designated: Off-highway motorized vehicle use is limited to existing roads and jeep trails year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units.)

Designated Routes

Limited - Level 6 (L6): 50,773 acres: Off-highway motorized vehicle use is limited to designated roads and trails (jeep, ATV and/or motorcycle) year-round, except as otherwise posted.

Limited - Level 7 (L7): No acreage currently designated: Off-highway motorized vehicle use is limited to designated roads and trails (jeep, ATV and/or motorcycle) year-round, except as otherwise posted; with management retaining the option to close lands to OHMV use from (month-day) to (month-day), except for designated routes. (Dates can vary among administrative units).

Closed: No acreage currently designated: All lands are closed to off-highway motorized vehicle use year-round.

Notes:

- Off-highway motorized vehicles (OHMVs) are defined as all motorized vehicles which are capable of being operated off of improved and regularly maintained roads having hardened or gravel surfaces.
- A jeep trail is defined as a two-wheel track. Motorcycle and ATV trails are narrower, single-track vehicle routes.
- Posted exceptions can include authorizations for winter snowmobile or snow cat use; the posting of sand washes as part of a trail system; area-wide closures of a specific type of trail; closures of specific routes to all vehicles or to specific types of vehicles; closures of specific areas for "emergency" purposes; or prohibitions against random hill climbing activities; etc.

Wild, Scenic and Recreational River Eligibility and Classification

Within the Owyhee Resource Area, there are 55 river segments (or groupings of segments) totalling 1,221.5 miles which were inventoried to determine if they met the definition of a free-flowing river under Section 15 of the Wild and Scenic Rivers Act (P.L. 90-542). Each of the 55 "river" segments and related adjacent lands were evaluated to determine if they are eligible for national designation under one of three classifications as defined under Section 2(b) of the Wild and Scenic Rivers Act. See Appendix RECT-2. For any river segment to be eligible for potential suitability as a designated national wild, scenic or recreational river, it must not only meet one of the three classifications, but the river corridor must also possess one or more "outstandingly remarkable" values as defined by Section 1(b) of the Wild and Scenic Rivers Act, including scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value (such as watershed). The judgment as to whether resource values are outstandingly remarkable can be made from a regional, State or national context.

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A summary of the rivers in the Owyhee Resource Area that were inventoried for eligibility is presented in Table RECT-4. Of the inventoried river segments, 223 miles were found to be eligible for designation as either wild, scenic or recreational rivers. Narratives for eligible and non-eligible river segments can be found in Appendices RECT-3 and RECT-4 respectively. The river segments found eligible in the inventory are shown on Map WSR-1 and displayed in Appendix RECT-2.

The 223 miles of river found eligible for designation were further studied, within the scope of the Owyhee RMP, to determine their suitability for inclusion in the National Wild and Scenic River System. Narratives for suitable and non-suitable river segments can be found in Appendix RECT-6. The suitability recommendations are shown on Maps WSR-A, WSR-B, WSR-C, WSR-D, and WSR-E, and displayed in Appendix RECT-5.

Visitor Use

Total annual recreation visitor use in the Owyhee Resource Area for 1995 is estimated at 164,682 visits. These visits account for 1,766,076 visitor hours. See Table RECT-5 . Driving for pleasure, off-highway vehicle use, hunting, vehicle camping, picnicking, day-hiking and rock hounding were the predominant land-based activities. Fishing and whitewater boating were the water-based activities for the spring and summer; with snowmobiling and cross-country skiing occurring in the winter months. Recreation visitor use by recreation management area is shown in Table RECT-5. Visitor use estimates are based in part on information supplied in the 1983 and 1990 Idaho State Comprehensive Outdoor Recreation Plans (SCORP).

Recreational use of the various recreation opportunity settings available on public lands centers around the following principal activities: hunting, fishing, whitewater boating, off-highway motorized vehicle use, backpacking, hiking, camping , horseback riding, rock hounding, picnicking, pleasure driving (sight-seeing), cross-country skiing, and snowmobiling. The estimated amount of recreational use has been steadily increasing for most activities, and is projected to continue to increase as the area's population expands. (Refer to Table RECT-6) By the year 2018, overall recreation use is projected to increase 70% over 1998 levels.

Special Recreation Permits

There are currently eleven special recreation permits (SRPs) issued annually or on a five-year basis to commercial outfitting services. Six of the SRPs are for Owyhee River float boat outfitters and five are for land-based outfitters. SRPs are also issued to individuals and organizations for specific competitive events and large group activities, such as field dog trials, horse orienteering events, motorcycle races, and mountain bike races.

Wilderness

Section 603 of FLPMA requires the review of all public lands for wilderness values. Those found to have wilderness characteristics during inventories conducted between 1979 and 1985 were designated as wilderness study areas (WSAs). There are 298,630 acres of public lands associated with 13 WSAs within the Owyhee Resource Area. See Map WNES-1. Of this acreage, 294,740 acres are Section 603 wilderness study area lands and 3,890 acres are Section 202 (FLPMA) study lands which are contiguous to the WSA lands. The Section 202 study lands were identified during the wilderness study/EIS process when

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non-Federal lands adjacent to WSAs came under the jurisdiction of the BLM. This jurisdictional change occurred as a result of the South Mountain Exchange and because proposed wilderness study boundaries needed to be adjusted slightly to improve management of the wilderness proposal. Non-Federal lands acquired by the BLM during the South Mountain exchange which lie within the WSAs are now considered part of the WSAs.

The wilderness study areas in the Owyhee Resource Area are contiguous to or adjoin an additional 364,147 acres of study areas in the Bruneau, Jordan and Elko Resource Areas of Idaho, Oregon and Nevada, respectively. Table WNES-1 shows the acreage for the affected WSAs in the three state area.

All WSA lands must be recommended to Congress as either suitable or nonsuitable for wilderness designation. There are 195,980 acres of public lands in the Owyhee Resource Area which have been recommended as suitable for wilderness designation. Adjoining this acreage there are an additional 237,965 acres recommended as suitable in the Bruneau, Jordan and Elko Resource Areas of Idaho, Oregon and Nevada, respectively. Public lands recommended suitable for wilderness designation are shown in Table WNES-2. Wilderness study areas recommended suitable for wilderness designation within the Owyhee Resource Area (for all alternatives) are delineated in Table WNES-2.

Until Congress takes action on the BLM recommendations, all WSA lands are managed in accordance with the BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review (H-8550-1, 1995), to prevent impairment of wilderness suitability. Section 202 study lands are managed for unnecessary and undue degradation under authority of Section 302 of FLPMA.

Recommended Wilderness Areas in the Owyhee Resource Area

WSA #	WSA Name	Acreage
ID-16-40	North Fork Owyhee River	41,025
ID-16-48B	Owyhee River Canyon	35,620
ID-16-48C	Little Owyhee River	16,330
ID-16-49A	Owyhee River - Deep Creek	47,840
ID-16-49D	Yatahoney Creek	4,425
ID-16-52	Juniper Creek	5,785
ID-16-53	South Fork Owyhee River	44,955
Total		195,980

Visual Resources

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that the BLM consider the effects management actions have on the visual quality of the natural landscape. To protect visual resources, all public lands are assigned a visual resource management (VRM) classification based upon an evaluation of scenic quality, distance zones (viewsheds from travel corridors or observation points), and public sensitivity toward scenic quality. The visual resource management objectives for each of four possible classifications are described in Appendix VISL-1. Current VRM classifications and acreages are described in Objective VISL-1 and shown on Map VISL-A.

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The visual resources in the Owyhee Resource Area were originally inventoried during the preparation of the Owyhee and Bruneau MFPs. The visual resource management (VRM) classifications identified during these planning efforts have been updated for lands with special administrative designations that have higher public sensitivity. Land with special administrative designations which call for preserving pristine or primitive landscapes are currently managed as Class II areas. VRM Class I determinations were not made until the Owyhee RMP. Any lands congressionally designated as wilderness or national wild rivers would be reclassified as VRM Class I areas regardless of what current administrative designations may apply.

Congressional release of some WSA lands would result in the affected lands being reclassified as VRM Class IV areas. These reclassified WSA lands would be areas not incorporated within other BLM special administrative designations. Without wilderness considerations, or consideration under any BLM special designation, the affected lands are too remote and lack sufficient scenic quality to be rated higher than VRM Class IV.

Existing recreation site developments are few and widely scattered and generally do not affect the scenic quality of the resource area as a whole. Recreation sites have been designed to reflect concern for the four basic elements of the characteristic landscapes found in their viewsheds; line, form, color and texture. Recreation development has generally been undertaken to mitigate existing or projected adverse site-specific impacts on recreation and visual resources brought about by concentrated use.

Off-highway motorized vehicle (OHMV) use of the Owyhee Front has resulted in a serious decline in visual quality in several areas including:

- The unnamed butte adjacent to Highway 78, west of Wilson Creek Road.
- Hemingway Butte adjacent to Reynolds Creek Road.
- West Rabbit Creek area adjacent to Highway 78, west of Murphy.
- Jump Creek Canyon west of Highway 95, in the Homedale area.

Historically these areas have been used as "hill climbing" sites where OHMV users repeatedly climb and descend steep slopes with motorcycles, all-terrain vehicles (ATVs), 4X4 trucks, and dune buggies. This activity has left substantial portions of the butte areas devoid of vegetation and suffering from rill and gully erosion. The soils in the butte areas are generally whitish-brown in color, and when denuded of vegetation, the hill climb areas are quite noticeable from great distances. The Hemingway Butte and Jump Creek hill climbs can be readily distinguished for miles north of the Snake River in Canyon County. The "unnamed butte" and Hemingway Butte hill climbs are immediately adjacent to major travel corridors and affect the scenic vistas of travelers. Throughout the Owyhee Front, many miles of roads and trails traverse the hillsides and cause localized degradation of scenic quality.

Major impacts to visual resources have been caused by locatable and fluid mineral exploration and development activities. Cumulative impacts on visual quality in the Snake River and Jordan Creek geographic reference areas from past and existing mining are already considered to be substantial. Exploration efforts during the early-20th Century in the Snake River area have left behind numerous disturbed areas throughout the lower and middle elevations of the Owyhee Mountains. The most notable are those of the Reynolds-Hardtrigger-Rats Nest Creek area of the Owyhee Front SRMA. Mountain sides have been disturbed, often by bulldozers and other heavy equipment and many have been left unrehabilitated, exposing underlying lighter colored bedrock that is readily visible as an unnatural element of the landscape within numerous viewsheds. Numerous white-posted mining claim markers identifying sites of potential future exploration activities are visible on the landscape. Historic impacts to the visual resources from mineral development in the 19th Century also exist at higher elevations such as Silver City, and include mine tailings extending downslope from mine shafts and mill sites. While the 43 CFR 3809 regulations

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now prohibit the "unnecessary and undue degradation" exhibited by much of the past exploration activities, the use of heavy equipment to move large amounts of side slope material makes rehabilitation to an "unnoticeable state" an unrealistic objective for visual resource management in many areas of the Owyhee Mountains.

Current mineral development at DeLamar and Florida Mountain, near Silver City, further degrades the scenic resources of the Silver City Range. The size and nature of the modern exploration and development activities, despite reclamation efforts, cause irreversible and irretrievable losses of scenic quality. Current mining operations at the Stone Cabin Mine, located on Florida Mountain, have removed the mountain top and reshaped the slopes into a series of cut-and-fill terraces.

Cultural Resources

Cultural resources are the remains and locations of past human activity. They include archaeological and historic properties as well as places that have intangible but significant meanings for modern cultural groups. Cultural resources may possess both informational and heritage values. Their information value lies in their contribution to our knowledge of the human past gained through scientific study. Heritage values contribute to the maintenance of traditional religious beliefs or cultural practices. In a larger sense, they also include the general public's desire to learn about and visit archaeological and historic sites. Thus, there are spiritual, educational, and recreational aspects to heritage values.

An appreciation of these values and recognition of their fragile, irreplaceable nature has led Congress to pass several laws governing the identification, evaluation, and protection of cultural resources. The primary statutory authorities for BLM's management of cultural resources include the following: the National Historic Preservation Act of 1966, which in section 106, directs federal agencies to take into account the effects of their actions and authorizations on properties included in or eligible for the National Register of Historic Places, and, in Section 110, sets inventory, nomination, protection, and preservation responsibilities for federally owned cultural properties; the National Environmental Policy Act of 1969, which makes the preservation of important historic and cultural aspects of our national heritage a function of the Federal Government's environmental protection mandate; the Federal Land Policy and Management Act of 1976, which directs the BLM to manage public land on the basis of multiple use in a manner that will "protect the quality of historical resources, and archaeological values" (FLPMA) is the primary basis for managing cultural resources on public land); the American Indian Religious Freedom Act of 1978, which requires that special consideration be given to the effects of federal programs and policies on places and practices of religious importance to Native Americans; the Archaeological Resource Protection Act of 1979, which provides felony level penalties for the unauthorized excavation, removal, damage, alteration or defacement of archaeological resources found on public land; and the Native American Graves Protection and Repatriation Act of 1990, which establishes the rights of Indian tribes to claim ownership of certain "cultural items", including human remains, funerary objects, sacred objects, and objects of cultural patrimony, held or controlled by federal agencies and museus that receive federal funds. Bureau of Land Management Manual Section 8100 provides policy and guidance for implementing these statutes.

In the Owyhee Resource Area over 1700 cultural resources have been recorded to date. Since less than 10% of the area has been inventoried, this figure represents only a fraction of the actual resources present. Most of the known properties are native American archaeological sites including villages and campsites, and special use areas like petroglyph panels and rock alignments. Historic sites are also common and include architectural remains from mining town sites, engineered features like mine adits and Civilian Conservation Corps dams, linear transportation systems like stage roads and emigrant trails, and farming/ranching homesteads and sheep camps.

Threats to these resources stem from a variety of natural forces and human actions. Natural agents include erosion, wildfire, rodent burrowing, rust and decay. Human caused impacts can be unwitting or purposeful. Common sources of human damage include unregulated OHMV use, unauthorized construction and agricultural trespass, vandalism, and illegal excavations. Damage by livestock is usually caused by trailing through sites and congregating at water sources.

To help counter these threats, BLM employs a number of physical and administrative protection measures. Initial steps designed to stabilize and protect significant cultural resources have been made through the nomination and listing of selected sites and areas to the National Register of Historic Places. These include the GuffeyButte/Black Butte Archaeological District, the Silver City and DeLamar Historic Districts, and portions of the South Alternate Oregon Trail through the 1984 Boise District Oregon Trail Management Plan, which created a protective visual corridor and restrictions on impacts due to BLM authorized actions. In addition, physical measures such as exclosure and gap fencing, site monitoring, and law enforcement patrols have been, and will continue to be, utilized to decrease the rate of deterioration of cultural resources in the Owyhee Resource Area.

Hazardous Materials

At present, the following sites in the RMP area are on the Federal Facilities Hazardous Waste Compliance Docket (these sites are also listed on CERCLIS):

Pesticide Dump Site, Reynolds	ID4141190013
Pesticide Dump Site, Sec. 5	ID3141190014
DeLamar Silver Mine	IDD980978415
Owyhee Co. Marsing/Homedale LF.	IDD980497515
Hulet Dump	IDD1411A0015
Owyhee Co. Wilson Creek LF.	ID4141190010

The Reynolds, Sec. 5, and Hulet Dump sites have been cleaned up and EPA has given the sites a designation of no further remedial action planned (NFRAP). The Wilson Creek landfill was closed in 1990 (EPA designation NFRAP). The Owyhee Co. Marsing/Homedale landfill was closed in 1994 (EPA designation NFRAP). The DeLamar Silver Mine is still an active operation with the major portion of the heap leach pond and mine waste pits on public lands.

Many of the hazardous material incidences on the public lands are the result of illegal dumping (e.g., pesticide containers). This type of action will probably continue due to restrictions on disposal and closures of local landfill operations.

Right-of-Ways represent another source of hazardous materials. These include powerlines and pipelines (oil and gas).

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Mining operations, especially those associated with the cyanide heap leach process, are a potential source of hazardous materials. These are in the form of mine waste, processing chemicals and fuels. The Delamar Silver Mine and the associated Stone Cabin mine site are the most prominent operation in the RMP area.

Current BLM policy is that no public lands will be leased or permitted for the storage, treatment, or disposal of hazardous waste, nor will public lands be leased for purposes of sanitary landfills. Lands may be sold or exchanged for these purposes under the appropriate lands action.

All hazardous materials incidences on public lands are handled as outlined in the Idaho BLM Contingency Plan for Hazardous Materials Incidents. All actions are consistent with current Federal and State regulations. All Lands and Minerals actions are reviewed both internally and externally (if appropriate) for compliance with Federal and State regulations. Special stipulations are also developed as part of the permit or lease to safeguard human health, environmental damage, and Bureau liability.

An increase in the amount of both solid and hazardous waste illegally dumped on public lands is projected. Educating the public about this situation and more law enforcement should help curtail this situation.

Many of the landfills that have closed or are closing will be subject to further investigation and possible corrective action as more information of past hazardous material activity becomes known. An inventory of potential hazardous waste sites was implemented in 1992. This inventory covers mine sites, lease and permit sites, ROWs, and any other activities that may have produced a hazardous materials incident on public lands.

Studies relating to the mercury problem in the Owyhee River watershed will be an ongoing process in the resource area. Historic mining operations utilized large amounts of mercury in the processing of gold. Releases of this mercury to the Jordan Creek system were common.

Areas of Critical Environmental Concern (ACEC)

ACECs are defined in the Federal Land Policy and Management Act of 1976 (FLPMA) as areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect human life and safety from natural hazards. Designations of Research Natural Areas (RNAs), Outstanding Natural Areas (ONAs), and Natural Hazard Areas (NHAs) as ACECs are identified as possible determinations made in this planning effort.

There are two existing ACECs in the Owyhee Resource Area: a portion of the Owyhee River Bighorn Sheep Habitat Area and a portion of the Guffey Butte/Black Butte Archaeological District. There are also two existing ONAs in the resource area; the Boulder Creek ONA and the North Fork Juniper Woodland ONA. Public participation and BLM staff input has resulted in these four areas and 16 additional areas being considered for ACEC designation and special management to protect the resource values identified. Table ACEC-1 summarizes the information reviewed by the interdisciplinary team during their evaluation of these areas under the relevance and importance criteria and other guidance identified in BLM Manual 1613. The locations of the four currently designated areas are shown on Map ACEC-A. Detailed site descriptions follow.

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Guffey Butte/Black Butte Archaeological District (7,750 acres; Cultural resources)

The Guffey Butte/Black Butte Archaeological District was designated as an ACEC on March 30, 1983 in the Kuna Management Framework Plan. The boundary encompasses 32,228 acres (26,714 public land acres) along 33 miles on both the north and south sides of the Snake River Canyon and corresponds with the Snake River Birds of Prey Natural Area boundary established in 1971. This area is within the Snake River Birds of Prey National Conservation Area established in 1993 by Public Law 103-64. About 7,750 acres of the Guffey Butte/Black Butte ACEC are within the Owyhee Resource Area and will be addressed in this RMP. The remainder of the ACEC is located in the Bruneau Resource Area and is not addressed in this planning effort. A portion of this ACEC (204 acres) overlaps with the Sinker Creek area (see description below).

The Guffey Butte/Black Butte Archaeological District has long been known to be an area of intense prehistoric occupation. Its significance was recognized by its placement on the National Register of Historic Places in February, 1979. The 114 sites which comprise the district include a wide diversity of historic and prehistoric sites. The historic sites include Swan Falls Dam, Guffey townsite and railroad bridge, and the Halverson Bar mining settlement. A portion of the Oregon Trail also passes through the area. The prehistoric sites include a spectacular rock art site known as the Wees Bar petroglyph field and Shellbach Cave, the first scientifically excavated site in Idaho.

Owyhee River Bighorn Sheep Habitat Area (141,796 acres; Bighorn sheep)

The Owyhee River Bighorn Sheep Habitat Area was designated as an ACEC on March 30, 1983 in the Bruneau and Owyhee Management Framework Plans. The boundaries of this ACEC currently encompass 180,000 acres along the Owyhee River and in the Battle Creek-Deep Creek-East Fork Owyhee River and the South Fork Owyhee River areas; 129,763 acres are in the Owyhee Resource Area with the remainder in the Bruneau Resource Area. The ACEC was designated to protect and enhance habitat for bighorn sheep, to maintain or improve the habitat to at least a good range condition class, and to protect and maintain the scenic and natural values present in the area. Habitat evaluation has resulted in identification of an additional 12,033 acres of suitable bighorn sheep habitat for a total of 141,796 acres under consideration. The ACEC is located within the following six Wilderness Study Areas (WSAs) of the Owyhee Resource Area: Owyhee River Canyon, Little Owyhee River, Owyhee River-Deep Creek, South Fork Owyhee River, Yatahoney Creek, and Juniper Creek. All six of these areas have been recommended as suitable for wilderness designation. The Tules area, which encompasses 114 acres, is within the southeast portion of the Bighorn Sheep Habitat Area ACEC (see description below). Under Alternative E, The Tules would be designated as an RNA only, since it is encompassed by the much larger existing ACEC. Portions of the Lambert Table and Juniper Mountain areas also overlap with the existing Bighorn Sheep Habitat Area ACEC (see descriptions below).

California bighorn sheep, a BLM sensitive species which formerly occupied this region, were reintroduced into this area during the 1960's. It is estimated that about 500-700 bighorns occupy this area at the present time and it is anticipated that the populations will continue to expand into adjacent habitat in Nevada. The bighorns have already extended their range into the adjacent habitat in Oregon. In addition to bighorn sheep, the area also contains a diversity of other special status animal species including wintering bald eagles, ferruginous hawks, sage grouse, redband trout and several species of bats and neotropical migrants. The ACEC also contains crucial deer winter habitat, as well as habitat for pronghorn antelope, mountain lion, river otter, beaver, chukar, and a diversity of waterfowl, raptors and other nongame birds, mammals, reptiles and amphibian species typically associated with riparian, canyon and shrub steppe habitats. The area contains numerous rugged, deep canyons which have exceptionally high scenic quality, and the Owyhee River, a popular early spring whitewater boating river. This river segment has been identified as eligible as a component of the Wild and Scenic Rivers system. It has also been designated as a Stream Segment of Concern (SSOC).

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Boulder Creek (10,741 acres; Scenic values, Wildlife resources)

Boulder Creek is comprised of a deep, winding canyon which cuts through a basalt and rhyolite tableland. A 10,741 acre area was recognized as an Outstanding Natural Area (ONA) in the 1981 Owyhee MFP based on high scenic values and multiple natural resource values. Interdisciplinary analysis concluded that 6,978 public land acres meet the ACEC criteria. The Boulder Creek canyon and adjacent Rock Creek canyon have been identified as eligible as a component of the Wild and Scenic Rivers system.

The dominant plant communities represented in the area include western juniper-Idaho fescue (Juniperus occidentalis-Festuca idahoensis) and western juniper-low sagebrush (Artemisia arbuscula), in addition to the riparian shrub component. The area also contains a number of special status animal species including redband trout, sage grouse and a several species of bats and neotropical migrants as well as other wildlife including elk, mule deer, mountain lion, pronghorn antelope, river otter, beaver, chukar partridge, and a diversity of waterfowl, raptors, mammals and other nongame species

Cinnabar Mountain (277 acres; Plant communities)

Cinnabar Mountain, on the eastern edge of the Owyhee Mountains and at an elevation of 7000 feet, contains excellent examples of reasonably undisturbed high elevation mountain mahogany (Cercocarpus ledifolius), Douglas-fir (Pseudotsuga menziesii), and subalpine fir (Abies lasiocarpa) communities. It also includes a low sagebrush-bluebunch wheatgrass (Agropyron spicatum) community on a windswept portion of Hayden Peak. Extensive historical as well as current use of the Owyhee Mountains has resulted in few such communities in excellent condition. Therefore, Cinnabar Mountain serves as a valuable rangeland reference area. Because of its elevation, Cinnabar Mountain also has high scenic values. A number of special status animal species are known or expected to occur in the area including sage grouse, one or more species of bats and neotropical migrants and a diversity of other wildlife species including elk, mule deer, mountain lion, several species of raptors and other nongame animals. This area qualifies as a Research Natural Area.

Coal Mine Basin (1,604 acres; Special status plants, Paleontological resources, Biological diversity)

The extensive and colorful ash beds present in Coal Mine Basin contain a diverse assemblage of plant communities, three BLM special status plant species, a large diversity of special status and other animal species, scenic values, and fossils of both vertebrates and plants. Smooth stickleaf (Mentzelia mollis), Packard's lomatium (Lomatium packardiae), and Malheur yellow phacelia (Phacelia lutea var. calva), are narrow endemic BLM sensitive plant species present at several locations within the area. Other special status plants such as Owyhee clover (Trifolium owyheense) and biennial princesplume (Stanleya confertiflora), grow in similar habitats but have not yet been found in this area. Plant communities include Wyoming sagebrush-bluebunch wheatgrass (Artemisia tridentata ssp. wyomingensis), mountain mahogany-Idaho fescue, Wyoming sagebrush-Idaho fescue, Great Basin wild rye (Elymus cinereus), needle-and-thread grass (Stipa comata), and low sage-Idaho fescue (Artemisia arbuscula). Fossils of roots, leaves, fish, Oreodonts, and horses may be found throughout the area. The layering and color variation of the ash flows combined with their topographic relief create a rugged and highly scenic landscape. Among the special status animal species known or very likely to occur are sage grouse, pygmy rabbit, and several species of bats and neotropical migrants as well as mule deer, pronghorn antelope, chukar, gray partridge, and a diversity of raptors and other nongame birds, mammals, reptiles and amphibians. This area qualifies as a Research Natural Area. Seven hundred fifty-five acres (755) adjacent to this area are being addressed by the Vale District, Oregon BLM for designation as an RNA/ACEC in the 1998 Draft Southeast Oregon RMP/EIS. The two adjoining areas would have the same name and be referred to collectively as the Coal Mine Basin RNA/ACEC.

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Hells Creek (260 acres; Plant communities)

Hells Creek contains a montane woodland of old, relatively undisturbed climax western juniper and Idaho fescue. These communities occur only in areas where bedrock is at or close to the surface. Hells Creek is located within the Juniper Mountain area (see description below). It is also within the Squaw Creek Canyon WSA which was recommended non-suitable for wilderness designation. This area qualifies as a Research Natural Area.

Jump Creek Canyon (612 acres; Plant communities, Watershed, Riparian resources, Scenic values)

Jump Creek Canyon contains excellent examples of several different undisturbed riparian communities along its perennial stream, a diversity of special status animal and other wildlife species, pockets of excellent condition Wyoming sagebrush-bluebunch wheatgrass, and high scenic values. Riparian communities include syringa-red-osier dogwood (Philadelphus lewisii - Cornus stolonifera), water birch-syringa (Betula occidentalis), and a water birch gallery forest. Special status animal species include redband trout which occur throughout the length of the creek, several species of bats and neotropical migrants that are known or expected to occur within riparian and canyon habitats bordering the creek and adjacent sagebrush steppe uplands and the Mojave black-collared lizard which is known to occur in outcrops near the lower end of the canyon. Mule deer, mountain lion, various raptors and other nongame birds, mammals, reptiles, amphibians and fish also occur within this unique area. The presence of numerous waterfalls, springs, pools, and steep canyon walls have created a unique and highly scenic environment. A small portion of the area is currently designated as a recreation site, and the remainder is within the Jump Creek SRMA. Jump Creek is designated as a SSOC and has been identified as eligible as a component of the Wild and Scenic Rivers system.

Juniper Creek Watershed (2,560 acres: Watershed, Riparian resources)

Juniper Creek Watershed contains a representative example of a riparian plant community along its perennial stream and is known or expected to support several special status animal species including redband trout and several species of bats and neotropical migrants. A diversity of other wildlife also occur including elk, mule deer, cougar, a variety of raptors and other nongame birds, mammals, reptiles and amphibians. The riparian community is dominated by willow (Salix ssp.). Juniper Creek Watershed has VRM Class 1 scenic values and has been designated as a Public Water Reserve (PWR). The area is within the North Fork Owyhee River WSA which was recommended suitable for wilderness designation, has been designated a SSOC , and has been identified as eligible as a component of the Wild and Scenic Rivers system. Juniper Creek Watershed was nominated by the Desert Group for ACEC designation.

Juniper Mountain (83,418 acres; Watershed, Riparian, Plant communities)

Juniper Mountain, at about 6600 feet, is the headwaters of seven major stream systems and forms a critical watershed for many thousands of acres. As the name suggests, Juniper Mountain itself is extensively forested by western juniper mixed with Idaho fescue and mountain big sagebrush (Artemisia tridentata ssp. vaseyana). Mountain shrubs such as chokecherry (Prunus virginiana), snowberry (Symphoricarpos oreophilus), bittercherry (Prunus emarginata), and aspen (Populus tremuloides) are present in the moister locations. Shallow, rocky soils are often occupied by climax juniper and mountain mahogany. The two-hundred sixty acre Hells Creek area (see description above) is located within the northwest quarter of the Juniper Mountain area.

Juniper Mountain is partially within three WSAs, Squaw Creek Canyon, Middle Fork Owyhee River and West Fork Red Canyon, which were recommended non-suitable for wilderness and two WSAs, Owyhee River Canyon and Owyhee River-Deep Creek, which were recommended suitable for wilderness designation. A portion of the Juniper Mountain area (12,455 acres) overlaps with the Owyhee River Bighorn Sheep Habitat Area and has been identified as eligible as a component of the Wild and Scenic Rivers system. The area provides habitat for a number of special status animal species including redband trout, a BLM sensitive species that occurs in all of the perennial drainages, sage grouse, several species of bats and neotropical migrants as well as other wildlife including elk, mule deer, mountain lion, pronghorn antelope, river otter, beaver, chukar, and a diversity of waterfowl, raptors, mammals and other nongame species. Several BLM sensitive plant species are present within the proposed boundary, including Osgood Mountains milkvetch (Astragalus yoder-williamsii), Simpson's hedgehog cactus (Pediocactus simpsonii var. robustior), rattlesnake stickseed (Hackelia ophiobia), white eatonella (Eatonella nivea), and dimeresia (Dimeresia howellii). Declining resource conditions are an important factor in determining the need for special management for this area. There are 64,298 public land acres within a 65,015 acre boundary initially identified by BLM staff. The Desert Group identified an additional 19,120 acres northwest of this area for a total of 83,418 acres.

Lambert Table (18,036 acres; Cultural resources)

Prehistoric sites within this area are significant because of a number of factors. The first of these is the large number of sites within a discrete area, and the resulting site density, which is unusual when compared to other areas within the Lower Snake River District. The second factor is the unusual lithic material encountered almost exclusively in these sites (a red, green, or yellow jasper, some of which may have been quarried from nearby Red Canyon). The third factor is the proximity of these sites to the Owyhee River corridor, which may have been used as a zone of microenvironmental exploitation by Native Americans inhabiting the Lambert Table area. In addition to cultural values, the area also supports a number of special status animal species including California bighorn sheep, sage grouse and several species of bats and neotropical migrants and a diverse assemblage of other wildlife including mule deer, pronghorn antelope, mountain lion, chukar, and a variety of raptors and other nongame birds, mammals, reptiles and amphibian species associated with shrub steppe habitats. There are 18,036 public land acres within a 18,674 acre boundary. Portions of Lambert Table are also within the Owyhee River Bighorn Sheep Habitat Area and within the Owyhee River-Deep Creek WSA which was recommended suitable for wilderness designation. Where Lambert Table encompasses the Owyhee River canyon, SSOC designation and eligibility as a component of the Wild and Scenic Rivers system also apply.

McBride Creek (261 acres; Special status plants)

McBride Creek provides habitat for four BLM sensitive species, including smooth stickleaf, barren milkvetch (Astragalus sterilis), Cusick's false yarrow (Chaenactis cusickii), and Malheur yellow phacelia. All four are limited in distribution to volcanic ash flows on or near the Idaho-Oregon border. The area qualifies as a Research Natural Area.

North Fork Juniper Woodland (9,107 acres; Plant communities, Watershed, Riparian resources)

This area includes the North Fork Owyhee River Canyon and several tributary drainages which shed water from rhyolitic rock outcrop uplands at 5,000 to 5,800 feet elevation. This area was designated as an Outstanding Natural Area (ONA) in the 1981 Owyhee MFP. The area was also evaluated on the basis of "illustrative character, condition, diversity, rarity, and value for science and education" and, in 1987, the

National Park Service recommended that the area be designated the North Fork Owyhee River National Natural Landmark (NNL) as the best example of a "montane western juniper woodland subtheme" in the Columbia Plateau Natural Region.

This area is dominated by a canopy of old-growth and mature stands of western juniper, with an upland understory of Idaho fescue intermingled with low sagebrush. Willow, chokecherry, dogwood, alder (Alnus ssp.), currant (Ribes ssp.), wild rose (Rosa woodsii), sedges (Carex ssp.) and grasses are dominant along the perennial and intermittent stream channels in the canyon bottoms. The area supports a number of special status animal species including redband trout and several species of bats and neotropical migrants as well as other wildlife including elk, mule deer, mountain lion, river otter, beaver and a diversity of waterfowl, raptors and other nongame birds, mammals, reptiles and amphibians typically associated with western juniper, riparian and shrub steppe habitats. This segment of the North Fork Owyhee River has been identified as eligible as a component of the Wild and Scenic Rivers system. The area is also within the North Fork Owyhee River WSA which has been recommended suitable for wilderness designation. There are 4,204 public land acres within a 4,406 acre boundary initially identified by BLM staff. The Desert Group identified an additional 4,903 acres north of this area for a total of 9,107 acres.

Pleasant Valley Table (1,467 acres; Plant communities)

Present within Pleasant Valley Table are excellent examples of Owyhee sagebrush- Sandberg bluegrass (Artemisia papposa-Poa secunda) and low sagebrush-Idaho fescue community types. The area has remained relatively undisturbed due to its rocky terrain. Owyhee sagebrush was at one time listed as a special status plant species in Idaho, but it has since been removed from that list. Although it is still a regional endemic, it is more common than previously believed. However, extensive and good condition communities dominated by this species are rare. Pleasant Valley Table also contains a rare community type occupied by silver sagebrush (Artemisia cana) and Idaho fescue. A number of special status animal species including sage grouse and several species of bats and neotropical migrants are known or expected to occur within the area as well as other wildlife including elk, mule deer, mountain lion, and a diversity raptors and other nongame birds, mammals, reptiles and amphibians typically associated with sagebrush stepp habitats. The entire area is within the North Fork Owyhee River WSA which has been recommended suitable for wilderness designation. This area qualifies as a Research Natural Area.

Rooster Comb Peak (8,172 acres; Cultural resources)

Prehistoric cultural resources within this area are of a habitation type which is found only at or near springs at elevations near 6,000 feet. More than 50 such sites have been recorded on public land in this area and are considered to be worthy of preservation and conservation for scientific use. This area appears to satisfy the requirements for nomination to the National Register of Historic Places as a prehistoric site district. In addition, many significant and historic mining related sites have been recorded in this area. It is not known how many additional sites of both types may be located on adjacent parcels of private and State land. There are 8,172 public land acres within a 19,762 acre boundary, 6,252 acres of which are VRM Class 2. Two hundred acres of the 440 acre Sommercamp Butte area (see description below) are encompassed by Rooster Comb Peak.

Sinker Creek (2,128 acres; Cultural resources)

This area is significant because of its association with early exploration and settlement themes. The historic Oregon Trail route passes through the eastern half of this area, ascending a steep slope to the plain above the nearby Snake River. Wagon ruts are visible along 3/4 mile of the existing trail, some of which have been worn into the basalt over which settler's wagons traveled. The Otter (or "Utter") massacre, during which a party of settlers traveling the Oregon Trail were slain by Native Americans, is said to have taken place along this segment of the trail. Both Native American and Euroamerican artifacts have been found here, and several graves are located nearby. There are 2,128 public land acres within a 2,656 acre boundary. This area is within the Snake River Birds of Prey National Conservation Area and 204 acres are within the Guffey Butte/Black Butte Archaeological District ACEC.

Sommercamp Butte (440 acres; Plant communities)

This area is noteworthy for its extensive, good ecological condition mountain mahogany-bluebunch wheatgrass community type. The rimrock butte top supports a mountain mahogany-gland ocean-spray (Holodiscus dumosus) community type. Mountain mahogany communities are currently poorly represented in special management areas within the Owyhee Uplands ecological region. The Sommercamp Butte area ranges in elevation from 6,000 to 6,360 feet. Because of its elevation, Sommercamp Butte also has relatively high scenic values. It is bordered to the north and east by state of Idaho land. Special status animal species known or expected to occur in the area include sage grouse and a number of species of neotropical migrants and bats along with a diversity of other wildlife including elk, mule deer, pronghorn, and a variety of raptors and other nongame species. Two hundred acres of the Sommercamp Butte area are included within Rooster Comb Peak (see description above) in Alternatives C and D. Sommercamp Butte qualifies as a Research Natural Area.

Squaw Creek (150 acres; Plant communities)

Two of the three physically separated portions of Squaw Creek are represented by excellent condition, low elevation Wyoming sagebrush-bluebunch wheatgrass communities. The northern parcel of these two is within the Wild Horse Herd Management Area. These two areas have been partially protected from livestock grazing by a lack of water, topography, and the presence of an old road cut on all but one side. The third area burned about 10 years ago, and is now a bluebunch wheatgrass community, with the Wyoming sagebrush just beginning to return. It is also in excellent condition due to nearly complete isolation from grazing for many years. All areas contain an extensive microbiotic soil crust, resulting in little exposed soil. Squaw Creek is particularly valuable as a rangeland reference area, since so few low elevation bunchgrass communities in excellent condition remain. Special status animal species known or likely to occur in this area include sage grouse, California bighorn sheep, and several species of bats and neotropical migrants as well as other wildlife including mule deer, chukar, gray partridge, and a diversity of raptors and other nongame birds, mammals, reptiles and amphibians. This area qualifies as a Research Natural Area.

The Badlands (3,600 acres; Special status plants, Plant communities, Scenic values)

The broken volcanic topography of The Badlands yields an area of high scenic value and diverse botanical features. The area's dominant plant communities include western juniper-low sagebrush-Idaho fescue and an uncommon bunchgrass community comprised of California oatgrass (Danthonia californica), with lesser amounts of Idaho fescue. The global distribution of the latter community, present only in dry washes and small upland pockets within The Badlands, is unknown, but it is presumably uncommon in Idaho. Simpson's hedgehog cactus, a BLM sensitive plant species, is present where other vegetation is sparse and soils are thin and rocky. Bailey's ivesia (Ivesia baileyi), a regional endemic of rhyolitic canyon walls, also occurs on suitable habitat within The Badlands. The area supports a number of special status animal species including, sage grouse and a several species of bats and neotropical migrants and a diversity of other wildlife including mule deer, mountain lion, and a variety of raptors and other nongame birds, mammals, reptiles and amphibian species. This area qualifies as a Research Natural Area. BLM staff initially identified a boundary of 1,097 public land acres in Alternative C. The Desert Group identified an additional 2,503 acres north of this area for a total of 3,600 acres. The Alternative E proposal would designate a total of 1,833 acres.

The Tules (114 acres; Plant communities)

The Tules is an abandoned oxbow of the Owyhee River where the river is incised 300 feet into the Owyhee Plateau. Most of the area is isolated from grazing by the steep canyon walls. It is located within the existing Owyhee River Bighorn Sheep Habitat Area ACEC, the Owyhee River SRMA and the Yatahoney Creek WSA. The river has also been designated a SSOC and has been identified as eligible as a component of the Wild and Scenic Rivers system. The Tules contains a diverse assemblage of plant communities, from riparian to upland. Its riparian communities include red-osier dogwood-coyote willow (Salix exigua), hardstem bulrush (Scirpus acutus), and water sedge-beaked sedge (Carex aquatilis-C. rostrata). Upland communities of seven different types are present, including mountain big sagebrush-bluebunch wheatgrass, basin big sagebrush-needle and thread grass (A. tridentata ssp. tridentata), basin big sagebrush-basin wildrye, low sagebrush-bluebunch wheatgrass, gray rabbitbrush- Sandberg bluegrass (Chrysothamnus nauseosus), and ninebark (Physocarpus malvaceus). In addition, the BLM sensitive plant species, rattlesnake stickseed, occupies portions of The Tules. Most of the special status animal and other wildlife species associated with the Owyhee River Bighorn Sheep Habitat Area ACEC are also known or expected to occur within this area, although this unique area is of special importance to waterfowl and a large diversity of other species dependant upon or associated with wetland/riparian habitats. This area qualifies as a Research Natural Area. In Alternative E, The Tules would be designated only as an RNA since it is encompassed by the much larger existing Owyhee River Bighorn Sheep Habitat Area ACEC.

Upper Deep Creek (640 acres; Riparian resources, Scenic values, Wildlife resources)

Upper Deep Creek is a perennial stream characterized by a riparian plant community in excellent condition. Due to the canyon topography, scenic values are very high (VRM Class 1). Wildlife species that occur in the area include mule deer, pronghorn antelope, cougar, a variety of raptors and other non-game birds, mammals, reptiles and amphibians and a number of special status species including bighorn sheep, sage grouse, spotted frog, redband trout, several species of bats and neotropical migrants and possibly peregrine falcons, which were observed in the vicinity in 1992. Rattlesnake stickseed, a BLM sensitive plant species, is known to occur in this area. The 640 acres of Upper Deep Creek in the Owyhee Resource Area are within the Upper Deep Creek WSA, which was recommended non-suitable for wilderness. Upper Deep Creek is a SSOC and has been identified as eligible as a component of the Wild and Scenic Rivers system. This area was nominated by the Desert Group for ACEC designation.

Paleontological Resources

Paleontology is the study of prehistoric life. Evidence of such life is preserved in the rocks of the earth's crust in the form of petrified remains and other indications of plants and animals. Not all fossils are of significant scientific or educational interest. However, all vertebrate fossils are categorized as being of scientific value because of their rarity in the geologic record. Management of paleontological resources on Federal land is covered primarily by the Federal Antiquities Act of 1906 which sets forth guidance relating to paleontological resources. The Act provides for protection of these resources on Federal lands. The FLPMA directs BLM to manage these resources in a manner that will protect them and provide for their proper use. BLM Manual 8100 provides additional guidance. Permits are generally required for excavation and collection of paleontological resources.

The only significant Tertiary aged vertebrate fossils from the State of Idaho have been collected from the Owyhee and Bruneau Resource Areas. Major collecting by qualified paleontologists in the Owyhee Resource Area has been by the United States Geological Survey, Idaho State University, the University of Michigan and the University of California at Berkeley. Because of the close proximity of the Owyhee Resource Area to the highly populated Treasure Valley, amateur collectors abound. Some outcrops where fossils occur have been extensively excavated.

Since little inventory work has been done it is not known what additional paleontological resources currently exist.

Paleontological resources will be managed in the same general manner in all alternatives to maintain or enhance significant scientific, educational and recreational values. Consequently, they are not addressed in Chapter 2.

Cave Resources

The Federal Cave Resources Protection Act of 1988 requires agencies to identify and manage, to the extent practical, cave resources determined to be significant. Procedures for determining the significance of caves are found at 43 CFR Part 37. A cave is significant if it possesses one or more of the following features, characteristics or values: biota, cultural, geologic/mineralogic, hydrologic, recreational and/or educational or scientific values. The Act defines a cave as any naturally occurring void, cavity, recess, or system of interconnected passages beneath the surface of the earth or within a cliff or ledge, including any cave resource therein, and which is large enough to permit a person to enter, whether the entrance is excavated or naturally formed. Rock shelters which exist from the over hang or cliffs are not considered caves.

Little is currently known about the existence of caves in the resource area though geological structures provide the potential for caves in some portions the area.

Cave resources will be managed in the same general manner in all alternatives to maintain or enhance significant scientific, educational and recreational values. Consequently, they are not addressed in Chapter 2.

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Social and Economic Conditions

Existing Management Situation

Though the Owyhee resource area is wholly contained within the western half of Owyhee County, the influence of the populated areas in Ada and Canyon Counties in Idaho and Malheur County in Oregon needs to be recognized. Therefore, this profile also covers Ada, Canyon, Owyhee and Malheur Counties (see Map SOCE-1). This profile discusses these counties in total and, where possible, identifies the contribution made by public land in the resource area.

Population

The profile area surrounding the Owyhee RMP area is highly diverse. There are 21 incorporated cities in the area, with populations that range from under 25 to over 125,000. The 1993 estimated total population of the four-county region was 370,300 (U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System, 1995). Ada County accounts for 63.1% (233,800), Canyon County accounts for 27.1% (100,400), Malheur County accounts for 7.4% (27,300) and Owyhee County accounts for the remaining 2.4% (8,800). This compares to the 1990 Census figure of 332,600 for the profile area which equates to a 11.3% increase in population in just three years.

Earnings

Total earnings in the four-county region in 1993 were $5,733 million (U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System, 1995). This consisted of $5,540 million in nonfarm earnings and $193 million in farm earnings. This level of 1993 nonfarm earnings represents a 35% increase since 1990. After adjusting for the effects of inflation (using the implicit GDP price deflator) this becomes a increase of 22.7% in real dollars. The 1993 farm earnings represent a 11% increase since 1990. This becomes a 1% increase after adjusting for inflation. Within the four-county region the services sector ranks largest in proportion to the rest of the sectors in the economy (in terms of earnings), followed by durable manufacturing, State and local government, retail trade, and construction. See Tables SOCE-1 and SOCE-2.

Employment

Total employment in the four-county region in 1990 was 201,811 (U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System). This consisted of 9,226 farm jobs and 192,585 nonfarm jobs. The level of 1993 farm employment was 8,639 which represented a 6.4% decrease since 1990. The 1993 nonfarm employment level was 221,842 and represented a 15.2% increase since 1990. Within the four-county region the services sector ranks largest in proportion to the rest of the sectors in the economy (in terms of employment), followed by retail trade, manufacturing, State and local government, and finance. See Tables SOCE-3 and SOCE-4.

Multipliers

When changes occur in one sector of a local economy, it triggers changes in other sectors of that economy. This is due to the interrelated nature of the economy. These changes are measured through the use of multipliers. The multiplier is a single number that summarizes the total effects that a change in final demand would have on individual sectors in the local or regional economy. Multipliers for individual economic sectors were developed for Owyhee County and can be seen in appendix SOCE-3. A write-up is also attached that discusses their development and potential uses in analyzing regional impacts. Needless

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to say the multiplier are generally low for each of the economic sectors within the county. This suggests that the level of impact will be greatest on those sectors being directly impacted by a change in output rather than activities that are indirectly related. Thus, the tendency will be for Owyhee County's regional economy to be impacted to a lesser degree to a change in one sector than if the regional economy were more interrelated.

An Economic and Social Assessment of Owyhee County, Idaho

For a more elaborate discussion of the social and economic environment within Owyhee County and the ranch models used to analyze potential impacts to the ranch community, see the final report "An Economic and Social Assessment of Owyhee County, Idaho" a technical report in fulfillment of assessment agreement No. 1422 0910A-70210. This technical report is on file with the BLM Lower Snake River District office in Boise, Idaho. The study was supported in part by the Owyhee Cattlemen Association, the Owyhee County Commissioners, the State of Idaho Department of Lands and the Bureau of Land Management. The University of Idaho Cooperative Extension Service provided the principle investigations for this study.

Ranch Economics

Ranchers may be directly impacted by the decisions and policies of federal and state land agencies. Grazing policy can impact ranchers in at least five general ways.[1] First, grazing fees can change on public lands. Second, there may be changes in the total number of Animal Unit Months (AUMs) of grazing allowed on federal and/or state lands. A "shortage" of public land AUMs may result in increased lease rates on private land grazing resources. A third way is when there is a change in the seasonal availability of forage use that is allowed on public lands. Fourth, allotments traditionally grazed by specific classes of livestock may require a change in the class of livestock allowed. And fifth, uncertainty created when the future direction of grazing fees and land use policies is undefined for an extended period.

This has been the situation since at least 1986 when the debate about grazing fees was renewed with the release of new grazing fee studies, followed by a continual stream of new grazing fee and land use policy proposals. Future policies and the accessibility of public lands for grazing have become less certain as the controversy about the management of public lands continues. The following discussion presents the status of existing ranching operations within Owyhee County.

Procedure

Ranch budgets for "typical" ranch operations were developed utilizing producer panels in Owyhee County. Based on the results of these producer panels, budgets for four different management scenarios were developed. These included: a 300 head cow-calf operation, using federal, state and private rangeland resources and winter feeding (budget subsequently designated as Jordan); a 500 head cow-calf operation using federal, state and private rangeland resources and winter feeding (Marsing); and two separate budgets for a 500 head cow-calf operation, using federal, state and private rangelands, with winter grazing permits on federal lands (Bruneau and Three Creek). The smaller (300 head) operation was most prevalent on the west side of the county (Owyhee Resource Area). The larger operations were centered from the middle of the county (Owyhee and Bruneau Resource areas) through the eastern half of the county, with winter grazing permits most prevalent in the eastern third of the county (Bruneau and Jarbidge areas).

[1] Costs and Returns of Owyhee county, Idaho Cattle Ranches, Neil Rimbey, Aaron Harp, Tim Darden and Chad Gibson, University of Idaho Cooperative Extension Service, 1999.

[redacted]

Background

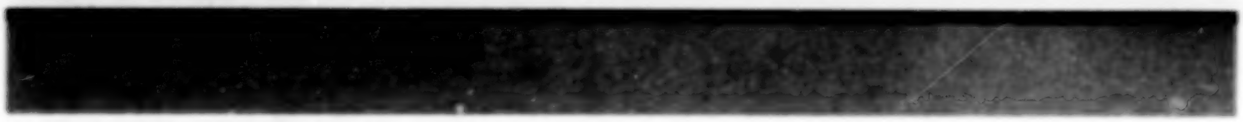
There are approximately 45,000 beef cows, slightly less than 10 percent of Idaho's beef cow herd, in Owyhee County (USDA-NASS, 1998). After a review of BLM resource area permittee lists, focus panel input, interviews conducted as part of the social survey and Census data, the following allocation of cattle numbers and ranches was made in the resource areas:

Table 1. Estimates of number of ranches, beef cows and public land grazing use by resource area and budget category, Owyhee County, Idaho, 1998.

Budget Categories	Average Herd Size	Number of Ranches	Cows	AUM/Cow[1]	Estimated AUMs	Licensed AUMs
OWYHEE RA						
Jordan Valley	280	25	7,000	6.99	48,930	
Jordan Valley	350	12	4,200	6.99	29,358	
Marsing	450	8	3,600	5.184	18,662	
Bruneau	1,000	2	2,000	9.072	18,144	
Total		47	16,800		115,094	115,144
BRUNEAU RA						
Bruneau	300	10	3,000	9.072	27,216	
Bruneau	500	14	7,000	9.072	63,504	
Bruneau	1,000	3	3,000	9.072	27,216	
Marsing	400	3	1,200	5.184	6,221	
Total		30	14,200		124,157	124,528
JARBIDGE RA						
3-Creek	500	10	5,000	5.86	29,300	
Bruneau	300	4	1,200	9.072	10,886	
Bruneau	500	7	3,500	9.072	31,752	
Bruneau	1,000	4	4,000	9.072	36,288	
Total			13,700		108,226	108,796
COUNTY TOTAL		102	44,700		347,478	348,468

[1] Represents length of time in months cattle graze on public lands.

Livestock budgets recommended for use in the analysis, along with average herd size, numbers of ranches, total number of cattle, estimated AUMs of BLM grazing use and total licensed AUMs of grazing are presented under each resource area name. The Owyhee Resource Area (ORA) includes 25 ranches with an average herd size of 280 cows. There are 7,000 head of cows in this size category in the ORA that consume an average of 6.99 AUMs per cow per year. Total BLM forage used by these 25 operations is 48,930 AUMs per year. There are also 12 ranches with slightly larger herd size (350 cows) using the Jordan Valley budget, 8 operations with an average herd size of 450 cows (Marsing) and 2 large operations (1,000 cows each) using the Bruneau budget. The last column in the table summarizes BLM's reported licensed grazing use for each resource area. Estimates of grazing use derived through the livestock budgets (Est. AUMs) are very similar to BLM's licensed grazing use (Licensed AUMs). Allocations of cattle and AUMs of livestock use for the other 2 resource areas are also included in this table. Based upon this allocation process and budget used, total BLM grazing in the county is estimated to be about 347,500 AUMs per year that is consumed by 44,700 head of beef cows.



It should be noted that the above table covers forage allocations representing average licensed use for 1981-1986 (that is the total number of AUMs sold whether used or not) for each resource area in Owyhee County. Current active preference is 135,116 AUMs within the Owyhee Resource Area, while the 10 year average (1987-1996) actual use is 96,676. The difference between total active preference and average actual use (approximately 38,500 AUMs) does not reflect on current operating costs. However, as discussed under permit values, there are financial considerations reflected in those AUMs that impact the ranch operation, including the ability to use the AUMs as collateral or in creating or maintaining ranch value.

The livestock budgets discussed below represent change in current actual use rather than the change from licensed use. Therefore, when estimating impacts to the ranching community in Chapter 4, it is the change in actual use that will be evaluated and not the change in active preference or licensed use.

Sheep grazing is limited within the county because of the declines in sheep numbers after World War II. Because of limited numbers and disclosure concerns, sheep budgets are not included in this study.

There are three known commercial feedlots in the county and a number of ranch-based backgrounding lots that provide marketing alternatives and flexibility to county cow-calf producers. Nearly all of the cattle fed in these commercial lots are under custom feeding arrangements, with the producers retaining ownership of the cattle during the feeding phase. There is also a large feedlot in Elmore County (with an Owyhee County address) that purchases cattle from ranches. Although ties from the cattle producers to these feedlots are extremely critical, no attempt is made to assess them in this document, other than the transactions estimated in the I/O phase of the study.

Marketing decisions by cow-calf producers are made at weaning (usually fall) and when cull animals are sold (various times during the year). If producers background or retain ownership, another set of decisions are made during the feeding phase (sell short yearlings in winter), return yearlings to grass in the spring and market as long yearlings, or to feed through slaughter (Marousek, et al. 1992). All of these decisions are made within the confines of the management and financial flexibility of the individual operation, as well as feed resources that are available.

Model Ranches

Jordan Valley

The model ranch developed through the producer panel is a 300 head cow-calf operation centered in southwestern Idaho. Calves are born in February and March of each year, run with the cows on rangeland through the fall and marketed as weaned calves in November. Weaning percentage (calves weaned divided by the number of bred cows wintered) is 87 percent and the calves weigh 440 pounds for the steers and 390 pounds for the heifers, at weaning in the fall. Cull cows weigh 1,000 pounds and are usually marketed in June (25 %) and December (75 %). Cull bulls weigh 1,800 pounds and are marketed in July. Cull replacement heifers weigh 800 pounds when sold in November.

Cow replacement rate is 20 percent per year, with 18 percent of the cow herd sold as cull animals and a 2 percent death loss. The ranch runs 17 bulls and maintains 6 head of saddle horses. This is a family operation that is supplemented by seasonal hired labor during the summer farming and irrigation season.

Cattle are turned out on rangeland in mid-April and graze a mixture of BLM and state rangeland through October 15, when they are moved back to private land resources (crop aftermath) for 2 months. Winter feeding of grass hay (cows) and alfalfa hay (replacement heifers) starts in mid-December and runs through calving and turnout back onto public range in April. Replacement heifer calves are supplemented with a corn/barley mixture during the winter feeding period (See Appendix Tables 4 and 5 for Jordan

[redacted]

Valley). Cows are worked in the fall at weaning, checked for pregnancy, and treated with a pour-on. Vaccinations are done in April, prior to turnout. Replacement heifers follow nearly the same veterinary program, with pregnancy checking done earlier in the year. Bulls are vaccinated in the spring, as well as fertility and health testing. Calves are vaccinated at branding in the spring and again in November at weaning. Replacement heifer calves are vaccinated for brucellosis in November.

The ranch operates with 2 tractors, a 4X4 pickup, 2 ton truck, 4 wheel ATV and the usual complement of feed wagons, vet equipment, stock trailer and other items. Ownership costs of equipment and vehicles are calculated based upon the average value over the life of the asset. In other words, it is assumed that the asset is used and at the mid-point of its useful life. Operating expenses of the vehicles and equipment are calculated based upon annual hours of usage. Insurance and tax assessments are based upon established rates and assumed values of the facilities and equipment.

Marsing

The model ranch developed through the producer panel in Marsing runs an average of 500 head of beef cows. Calves are born in February, March and April of each year, graze on rangeland in the spring through fall and are marketed as weaned calves in October and November. Weaning percentage is 88 percent and steer calves average 475 pounds and heifer calves average 422 pounds when sold. Cull bulls average 1,800 pounds when marketed in October. Cull cows weigh an average of 1,100 pounds when marketed in January and cull replacement heifers are sold in January at an average weight of 850 pounds.

Cow replacement rate is 17 percent per year (15 percent culled and 2 percent death loss). The ranch runs 25 bulls and 10 saddle horses. This is a family operation with 2 full-time employees and some additional seasonal labor during calving and winter feeding.

Cattle are turned out on public rangeland in mid-April and graze on federal and state lands through August. The cattle are moved to a mixture of private and state rangelands around September 1 where they graze until they are gathered and moved to the ranch, vaccinated and checked for pregnancy status in early November. They grazed crop aftermath until winter feeding of hay starts in mid-December. Cows and replacement heifers are supplemented with a 20 percent protein mixture while on winter feed.

Veterinary care for calves include viral treatments and 8-way vaccinations given twice during the year and parasite treatments. Heifer calves are also vaccinated for bangs in the fall. Cows and replacement heifers are vaccinated for vibrio, lepto and treated for parasites. Ten percent of the cows and all of the replacement heifers are checked for pregnancy status in the fall. Bulls are given the same veterinary treatments as the cow herd, with the exception of pregnancy checks and the addition of trich testing.

The ranch operates with 2 4X4 pickups, one stock truck, two 80 hp tractors, a feed wagon and a stock trailer.

Bruneau

The Bruneau panel recommended another management scenario involving a 500 cow operation. The bulk of the calves are born in February and March and are marketed in October. There is an 86 percent weaned calf crop, with steer calves averaging 485 pounds and heifers at 445 pounds when sold in October. Cull bulls weigh 1,800 pounds and cull cows average 1,100 pounds when both are marketed in July and October. Replacement heifers weigh an average of 850 pounds and are marketed in April and October.

Cattle are on rangeland nearly year-around. Public range permits run from mid-March through October, when cattle are gathered, worked and moved to crop aftermath for 2 months. During the winter months, cows are run on a mixture of deeded, federal and state rangeland and heifers are kept on hay fields or deeded range. Protein supplementation in undertaken from January through October. Cows are

[redacted]

supplemented with alfalfa/grass hay during January through mid-March. Heifers are fed hay from November through mid-March.

The ranch operates with two 4X4 pickups, 2 tractors, a stock truck, a stock trailer, two ATV's (4 wheelers) and a sedan. This is a family operation that employs 2 full-time employees and some seasonal part time help during calving and haying.

Cattle Prices

Cattle prices used in preparing the budgets were derived using the weekly Pacific Northwest Direct Sales database, available from USDA Livestock Market News. Prices for specific classes of animals (e.g. 400-450 pound medium frame steers) were averaged for each marketing month over the period of January, 1992 through May, 1998 and used in the respective budgets. The average prices used to develop cost and return estimates are presented in Table 2.

Table 2. Cattle prices used in Owyhee County, Idaho cost and return estimates.

Item	Price ($/cwt)
Steer Calves (350-400 lbs)	$89.79
Steer Calves (400-450 lbs)	$88.36
Steer Calves (450-500 lbs)	$85.12
Heifer Calves (350-400 lbs)	$79.58
Heifer Calves (400-450 lbs)	$77.04
Heifer Calves (450-500 lbs)	$74.82
Replacement Heifers (650-700 lbs)	$69.26
Replacement Heifers (700-750 lbs)	$67.84
Replacement Heifers (750-800 lbs)	$67.87
Cull Cows (Utility)	$40.14

Federal Forage Dependency

Dependency on federal and state forage resources is depicted in Tables 3, 4 and 5 for Jordan Valley, Marsing and Bruneau, respectively. These tables form the basis for developing ranch-level tools (budgeting, linear or dynamic programming models) for use in assessing the economic impacts of changes in the availability of feed resources, ranch management and marketing alternatives and others.

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Jordan Valley

Total feed demanded by the livestock, converted to an AUM basis, amounts to 4,621 AUMs. Forage demanded by the livestock from federal and state resources (April through October) amount to 2,239 AUMs. Thus, the dependency on federal and state forage is 48.4 percent, or nearly half of the total AUMs of livestock use are coming from federal and state land range resources (45 percent dependency on BLM).

Table 3. Forage Balance (AUMs per month), Jordan Valley

Feed	Units	AUM/ Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa Hay														
Replacement Heifers	ton	3.75	68.6	62.0	68.6	32.2								34.3
Feed Barley														
Relacement Heifers	cwt	0.19	10.3	9.3	10.3	5.0							6.6	5.1
Meadow Hay														
Cows	ton	2.50	291.0	262.5	255.8	123.8								141.0
Bulls	ton	2.50	30.7	27.7	30.7	14.9								15.3
Horses	ton	2.50	5.8	5.2	5.8	2.9								2.9
Protein Supplement 20%														
Cows	cwt	0.19	34.9										33.8	34.9
Federal Range														
Cows	AUM	1.00				138.0	276.0	276.0	276.0	276.0	276.0	138.0		
Replacement Heifers	AUM	1.00				23.6	47.2	47.2	47.2	47.2	47.2	23.6		
Bulls	AUM	1.00				13.2	26.4	26.4	26.4	26.4	26.4	13.2		
State Range														
Cows	AUM	1.00				12.0	24.0	24.0	24.0	24.0	24.0	12.0		
Crop Aftermath														
Cows	AUM	1.00										150.0	300.0	150.0
Bulls	AUM	1.00										13.2	26.4	13.2
Replacement Heifers	AUM	1.00										23.6	47.2	23.6
Salt	lb	0.00												
Total	AUMs		441.3	336.7	371.1	366.5	373.6	373.6	373.6	373.6	373.6	373.6	414.0	420.4

Table 4. Forage Balance *AUMs per month), Marsing

[redacted]

Marsing

Dependency on federal and state forage resources is depicted in Table 4. Total feed demanded by the livestock, converted to an AUM basis, amounts to 7,472 AUMs. Forage demanded by the livestock from federal and state resources (April through October) amount to 2,971 AUMs. Thus, the dependency on federal and state forage is 39.8 percent, or nearly two-fifths of the total AUMs of livestock use are coming from federal and state land range resources (34.7 percent dependency on BLM).

Table 4. Forage Balance (AUMs per month), Marsing

Feed	AUM/ Units	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa Hay														
Replacement Heifers	ton	3.75	110.4	99.8	110.4	53.4								53.4
Grass Hay														
Cows	ton	2.50	484.4	437.5	484.4	234.4								234.4
Bulls	ton	2.50	34.9	31.5										16.9
Horses	ton	2.50	9.7	8.8										4.7
Corn Silage														
Bulls	ton	1.00			37.5	18.8								
Federal Range														
Cows	AUM	1.00				235.0	470.0	470.0	470.0					
Replacement Heifers	AUM	1.00				38.0	76.0	76.0	76.0					
Bulls	AUM	1.00				15.0	30.0	30.0	30.0					
State Range														
Cows	AUM	1.00				15.2	30.3	30.3	30.3	100.0	100.0			
Replacement Heifers	AUM	1.00								15.2	15.2			
Bulls	AUM	1.00								6.0	6.0			
Private Range														
Cows	AUM									400.0	400.0			
Replacement Heifers	AUM	1.00									60.8	60.8		
Bulls	AUM	1.00									24.0	24.0		
Horses	AUM	1.00					10.0	10.0	10.0	10.0	10.0	10.0		
Crop Aftermath														
Cows	AUM	1.00											500.0	250.0
Replacement Heifers	AUM	1.00											76.0	38.0
Bulls	AUM	1.00											30.0	15.0
Horses	AUM	1.00											10.0	10.0
Salt	lb	0.00												
Protein Supplement 20%														
Cows	cwt	0.25		17.5	19.3	9.8								
Replacement Heifers	cwt	0.25	3.7	3.3	3.7	1.9					3.3	3.7		1.8
Total	AUMs		643.00	598.3	664.9	626.0	615.3	616.3	616.3	616.3	619.3	619.7	616.0	619.2

Bruneau

Dependency on federal and state forage resources is depicted in Table 5. Total feed demanded by the livestock, converted to an AUM basis, amounts to 7,587 AUMs. Forage demanded by the livestock from federal resources (March through October) amount to 4,536 AUMs. Thus, the dependency on federal forage is 59.8 percent, or nearly three-fifths of the total AUMs of livestock use are coming from federal land resources.

Table 5: Forage Balance (AUMs per month). Bruneau

Feed	AUM/ Units	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa Grass Hay														
Cows	ton	3.00	465.0	465.0	168.8									
Replacement Heifers	ton	3.00	106.9	96.6	51.8								103.5	106.9
Bulls	ton	3.00	27.9	25.2	27.9									
Horses	ton	3.00	11.6	10.5	11.6	11.3							11.3	11.6
Federal Range														
Cows	AUM	1.00			250.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0		
Replacement Heifers	AUM	1.00			46.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0		
Bulls	AUM	1.00			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Crop Aftermath														
Cows	AUM	1.00											500.0	500.0
Bulls	AUM	1.00											24.0	24.0
Horses	AUM	1.00											10.0	10.0
Deeded Range														
Horses	AUM	1.00					10.0	10.0	10.0					
Pasture														
Horses	AUM	1.00								10.0	10.0	10.0		
Protein Supplement 20%														
Cows	cwt	0.23	17.4	15.8	17.4	16.9	16.9	16.9	17.4	17.4	16.9	16.9		
Replacement Heifers	cwt	0.23	4.0	3.6	4.0	3.9	3.9	3.9	4.0	4.0	4.0	4.0		
Salt	lb	0.00												
Total	AUMs		632.9	616.7	589.5	636.0	634.8	634.8	635.4	635.4	634.8	634.9	648.8	652.6

Permit Values

As early as 1925 it was recognized that the annual value of the Federal grazing privilege was being capitalized into rancher property. "It is argued that long use of the range in connection with the early settlement of agricultural lands has resulted in capitalizing the values of public pasturage as part of the value of the ranch..." (USDA 1925).

A report published by the Utah State University Experiment Station stated: "There was nothing illegal or unethical in the fact that grazing permits took on value; ranchers just reacted to an economic situation that was created by government policy. Permit values rose because ranchers who have grazing permits were capturing economic rents in the form of low-cost grazing; i.e., the grazing fees and recognized non-fee costs did not equal the value of the grazing to ranches. Thus, the authorization to use the Federal lands and the associated economic rents were capitalized into rancher-owned assets. This value could show up either as a permit value or as an increased value of the commensurate property." (Nielson and Workman, 1972)

The Bureau of Land Management's position on permit values is based on very explicit language in Section 3 of the Taylor Grazing Act of 1934 which states: "So far as consistent with the purposes and provisions of this Act, grazing privileges recognized and acknowledged shall be adequately safeguarded, but the creation of a grazing district or the issuance of a permit pursuant to the provisions of this Act shall not create any right, title, interest, or state on or to the lands." Thus, any capitalized value associated with grazing permits has no legal basis, and, as a result, a rancher has no compensation for loss of this value. Magazine articles and research results have often been in conflict on the subject of permit values. Nevada rancher, Dean Rhodes, in an article in the New West Magazine, stated that "the forage right for a single cow on the public range now sells for anywhere from $1,500 to $3,000 in the Elko area." (Boly, 1980.) A survey done in New Mexico for ranch appraisers and credit officers placed the value of Forest Service permits at between $944 and $1,163 per animal unit, depending upon the area in New Mexico. Bureau of Land Management values varied from $677 to $888. (Fowler and Gray 1980.) On the other hand, a study in eastern Oregon found "the inclusion of public grazing privileges were found to have no significant impact on the level of private grazing land sale prices." (Winter and Whittaker, 1979).

There is no question that grazing permits carry value beyond those fees collected by federal agencies. Even active preference AUMs beyond those actually used have value for the ranch operator. As the above discussion suggests, it is debatable just how much these values are and to what extent they play a role in the day to day operations of a ranch operation. Obviously, if ranch operations use these AUMs as collateral for loans, financial lending institutions will need to consider the level of risk that is associated with the continued availability those AUMs in the future. Because there is a wide variance in the value of grazing permits, and the fact that BLM does not base grazing management decisions on permit values, the impact analysis in Chapter 4 does not contain a discussion of this subject other than the acknowledgment that this will be a factor in how ranch operations may react to reductions or increases in the number of AUMS in a grazing permit.

Recreation

Much of recreation is not traded in the marketplace as are other commodities. How people value recreational experiences is often open to conjecture, speculation or down right guess work. However, methods have been devised to approximate what recreation users would be willing to pay for their experiences. The net willingness to pay for recreation attempts to measure what that recreation experience would be worth if it were traded as a marketable commodity. The following visitor day values for 1995 combined with the levels of recreation use by activity (for 1995), found in the recreation section of this chapter, help to identify the economic values people place on recreation in the Owyhee Resource Area (based on studies by Donnelly, Loomis, Nelson, Oldenburg, Peterson, Sorg, and Young).

Net Willingness to Pay Recreation Value

Activity	1995 Value
Deer Hunting	$40.02
Elk Hunting	$52.42
Antelope Hunting	$80.47
Other Big Game	$53.65
Waterfowl Hunting	$42.48
Upland and Small Game	$42.47
Warm Water Fishing	$39.28
Cold Water Fishing	$38.08
Developed Site Recreation	$7.45
Disbursed Use Recreation	$4.47
Non-Game Viewing, Photo	$28.31

Owyhee Resource Area Estimated Recreation Use and Value

Activity 1995 *	Visitor Days 1995	Value
Hunting	70,772	$3,816,617
Fishing	11,109	$ 429,682
Off-Highway Vehicles	24,600	$ 696,412
Other Motorized Use	22,616	$ 640,266
Non-motorized Use	10,669	$ 47,689
Camping	39,107	$ 291,344
Other Land Based	36,740	$ 717,113
White Water Boating	1,368	$ 38,714
Other Water Based	1,057	$ 29,917
Snowmobiling	2,301	$ 10,285
Other Winter Sports	423	$ 1,891
Total	220,762	$6,719,930

*Based on 8 Hours Per Visitor Day

The above table depicts the values recreationists place on these activities rather than actual expenditures for each activity. Because of the nature of the economy of Owyhee County (see the discussion under the subheading Multipliers), if these were actual expenditures, most of these dollars would be expended outside the county and therefor would not have as great an impact on the local economy as they might otherwise suggest.

Revenues and Receipts to Local Governments

The Federal government receives revenues for various activities on public land. These include livestock grazing, mineral leasing, land sales, and timber sales. Some of these fees are the major sources of revenue. Section 3 grazing fee receipts are distributed in the following manner: 37.5% to the Federal treasury, 50% to the Range Improvement Fund, and 12.5% to the counties. Mineral leasing fees are split, with 50% going to the Federal treasury, and 50% to the State. The State, in turn, passes 10% of its share on to the counties. Shown below are the receipts and distribution for Owyhee County for livestock grazing and mineral leasing in FY 1994.

Fee Receipts and Distributions
Fiscal Year 1994

Source	Section 3 Grazing	Mineral Leasing
Federal Treasury	$245,214	$1,172
State Treasury	0	$1,067
Owyhee County	$81,688	$105
Range Improvement Funds	$326,902	0
Total Receipts	$653,804	$2,344

In addition, counties receive payments in lieu of taxes (PILT) for Federal lands within their boundaries. In FY 1994, this amounted to $342,000 for Owyhee County.

Social Conditions

The dominant character of Owyhee County is rural and oriented toward the utilization of public land, primarily for cattle grazing. Therefor, economic and social realities of public land management in Owyhee County cannot and should not be separated. The fundamental realities of economic life are embedded in the social relations that constitute rural communities like those in Owyhee County. A recently completed report[2] focused on the ranching community and what the social and economic impacts might be from changes in grazing management actions on Owyhee County communities. The following discussion presents those primary findings and sets them out at two levels of analysis: ranch operations and rural communities.

Ranch Operations

The primary, and by far clearest, impact of reductions in federal grazing AUMs will be on the ranchers directly affected by those reductions. The economics of public land ranching in Owyhee county is such that alternatives to federal AUMs are very limited. Interviews with ranchers in 1979 indicated that over one third had multiple alternatives in the event of reduced AUMs. Of the 33 ranchers interviewed for this report, all indicated that their only choices were to buy hay in the short run, and to reduce herd size in the long run. In the current cattle market, both of these choices restrict cash flow to a degree where difficult decisions about the future of each ranch will most certainly have to be made.

[2] Social Networks and Community Cohesion in Owyhee County Communities, Aaron J. Harp, cooperative Extension Rural Sociologist, Department of Agricultural Economicas and Rural Sociology, University of Idaho.

Clearly, the economic setting of 1979 was quite different with relatively low interest rates, financial institutions concerned only about the balance sheet (or net worth) and general optimism relating to cattle markets and potential investments to insure the future of public land grazing. Financial institutions encouraged investments in federal grazing permits and carried permits on balance sheets as assets. The operations surveyed in the 1970's perceived themselves to have flexibility and support from the financial institutions to "weather the storm" from federal grazing reductions.

Contrast that with the current survey that revealed there is little perceived flexibility in adjusting to reductions, pessimism related to cattle markets and financial institutions that are lending money solely on the ability of businesses to generate annual cash flow and pay back loans. There is also a high degree of dependency upon BLM forage, particularly during the spring through fall months. Changes in the allocation of BLM forage will potentially impact ranches through increased direct operating costs (purchases of hay or pasture, increased trucking, etc.), increased non-fee operating costs (additional herding) and reduced carrying capacity of ranches (herd reductions).

A primary social impact at the ranch level is the belief that few grazing management alternatives exist that will allow ranches to remain solvent in the long run. This belief has two significant sources.

The most important source of this is a persistent belief that grazing management as currently practiced constitutes the use of science to implement value judgements. This is strengthened by the belief that sparse, spotty, inconsistent or nonexistent data on rangeland health, particularly in riparian ecosystems, is used to make decisions that almost certainly will adversely affect many ranches and put some out of business.

The second major dimension of social impacts at the ranch level is a feeling that ranches are "boxed in" with respect to management alternatives. Public land ranchers are being asked to implement national level policies utilizing very limited set of available alternatives at the local level. Those alternatives that meet with approval from local area managers are usually not economically viable for ranchers in the long run. Their conclusion is that the management changes being demanded preclude other alternatives that would allow them to adjust over time. This leads to an overall feeling that grazing management can only be implemented if grazing is actually eliminated altogether.

Rural Communities

Social survey data from this study shows that the ranchers are integrated into many of the communities in Owyhee County. This integration is higher in the communities where ranching has a larger social role as well.

Essentially, the ranchers of Owyhee County are integrated into complex social networks. These networks change when proposed policies alter either the economic or social relationships within them. What is clear from the data is that reducing the economic viability of ranches adversely affects the density of social networks and the degree of community integration in some of the rural communities in Owyhee County.

An additional, and major, social issue at the community level is the legitimation crisis of local BLM managers. The ranching community displayed a level of bitter mistrust in the Owyhee Resource Area management sufficient to conclude that the BLM suffers from an almost complete absence of organizational legitimacy. This is certainly a function of the history of relations between the ranching community and the BLM. Nonetheless, until this is overcome or at least mitigated, significant conflict will continue to impede management changes and reduce the likelihood of acceptable solutions to management challenges.

So three general points are related. First, ranchers are part of cohesive communities in which they are part of dense social networks. Second, it is very clear that if the continued economic viability of ranches is threatened, then so are the networks within which they live. Third, the BLM has very little legitimacy with ranchers, and by extension, their social networks. Thus, social impacts, whether positive or negative, from grazing management decisions stems directly from the ability of BLM to reach their management goals for the whole resource while public land ranching continues as well. Decisions that meet these criteria will produce positive social impacts, and decisions that fall short of them will produce negative social impacts. Positive or negative, those impacts will fall on the rural communities of Owyhee County.

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INTRODUCTION

This chapter analyzes the environmental impacts of implementing the land use allocations and management actions (decisions) prescribed in Chapter 2 for each alternative. Fire Management and Lands are considered to be support functions and change agents that cause impacts and consequently do not appear in this chapter as being impacted. The baseline for impact projections in all alternatives is the current condition or situation, the affected environment described in Chapter 3. Impacts are projected in terms of short-term and long-term. Short-term is assumed to be approximately five years unless otherwise specified. Long-term is assumed to be approximately 20 years unless projected further. Professional judgement is used to project environmental impacts where data is limited. Professional judgement is based on observation, analysis of conditions and responses in similar areas.

The analysis for each alternative is presented by resource and has four sections; Change Agents, Impact Analysis, Conclusion and Meeting the Objectives. Change agents are based on land use allocations or management actions (decisions) that when implemented would cause or produce impacts. The impact analysis is a detailed description of the environmental impacts that would occur, both beneficial and adverse, and is presented in decreasing order of significance or importance within each resource. The conclusion is a summary of the overall impacts of the alternative on a resource. Meeting the objectives is a measure to what extent the alternative would meet the objectives over the long term. A comparison of meeting the objectives by alternative is displayed in the Summary section.

Relationship Between Local Short-term Uses of The Environment and the Maintenance and Enhancement of Long-term Productivity

The short-term uses of the environment are basically those activities, or management actions, described in Chapter 2 for each alternative that would occur on the public lands. Those activities would result in differences in long-term productivity, beyond 20 years, for each alternative. The differences are presented as long-term impact projections for each alternative.

Irreversible and Irretrievable Commitments of Resources

Implementation of any of the alternatives would limit potential future uses of the land and resources to some extent. Irreversible and irretrievable commitments of resources occur when future options are foreclosed or resource values are lost. The resource commitments are presented as long-term, and in some cases short-term, impact projections for each alternative.

Assumptions

In order to conduct the impact analyses of the alternatives a number of assumptions and projections were made. The following discussion identifies the assumptions and projections that were made for analytical purposes under all alternatives.

This RMP would remain in place and guide public land management in the Owyhee Resource Area for approximately 20 years. Funding and staffing levels would be sufficient to implement any of the alternatives over a 20-year timeframe.

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Land Disposal

Contingent upon site-specific analysis and clearances for special status plant and animal species and cultural resource values, any of the lands identified as potentially suitable for sale in Table LAND-1 (approximately 10,699 acres) could be transferred from Federal ownership. Lands available for disposal by other methods such as exchange or R&PP are identified on Map Land-3E (approximately 314,000 acres). Disposals are contingent upon site-specific analysis and clearances. Based on previous and anticipated land actions in the Owyhee Resource Area, for analytical purposes it is projected that approximately 30,000 to 50,000 acres of the Federal lands potentially suitable for disposal would be transferred from Federal ownership during the next 20 years. Because of unknown exchange opportunities that may become available, the location of Federal lands that would be disposed of and the non-Federal lands that would be acquired is not projected. It is assumed for analytical purposes that where exchanges occur, non-Federal lands of equal or greater public value and benefit than those Federal lands being disposed of would be acquired and the amount of land acquired would be approximately the same as that which is transferred from Federal ownership. For analytical purposes, it is projected that approximately 3,000 acres of these Federal lands potentially suitable for disposal would be transferred, by sale, from Federal ownership over the life of the plan.

Locatable Minerals, Leasable Minerals and Mineral Materials

The rights to use these mineral resources would be transferred to the new land owner with transfer of Federal lands out of Federal ownership.

Oil & Gas Leasing

Because of the low potential for the occurrence of oil and gas reserves, discovery of a producible oil and gas field is not anticipated during the life of the plan. However, to perform an analysis of potential impacts and develop mitigating measures (stipulations and terms and conditions of a lease), a reasonably foreseeable development scenario was prepared. This scenario describes the discovery and development of a small oil field that could occur. This scenario is not site-specific but could reasonably be projected to be located in the area of low potential. Areas of oil and gas potential have been identified in the resource area and are shown on Map FLUM-1. Refer to the fluid minerals section in Chapter 3 for a description of the reasonably foreseeable exploration and development scenario and to Appendix FLUM-4 for a detailed description of typical oil and gas exploration and development activities. There would be opportunities for oil and gas leasing in all alternatives.

Geothermal Leasing

It is assumed that geothermal development would be minimal over the next 20 years. The low temperatures of the geothermal resource would support only relatively small local direct applications. No electrical generation is projected. Site specific impacts would be limited to small areas and would be mitigated by the stipulations identified for each alternative. These stipulations are the same as for oil and gas activities and are identified as fluid mineral constraints in Tables FLUM-A, FLUM-B, FLUM-C and FLUM-D.

Changes in Ecological Status

The following assumptions were used to project changes in ecological status from vegetation treatments:

1. Prescribed burns (sagebrush and juniper) would occur in those areas presently in a mid seral stage.
2. Prescribed burns would result in 60% of the total acreage identified actually burning because of mosaic patterns, terrain features and fuel loads.
3. Within 20 years 75% of the actual burned acreage would move from a mid to a late seral stage in those areas not seeded. In those areas that are seeded, 75% of the actual burned acreage would move from a mid seral to a treated category. This would result in 45% of the total acreage identified for prescribed burns, whether seeded or not, changing seral stage.
4. Juniper woodcuts would occur in those areas presently in an early seral stage. Woodcuts would occur on 100% of the acreage identified.
5. Within 20 years 50% of the total woodcut acreage would move from an early seral stage to a mid seral stage.

Rangeland Projects

Rangeland projects identified in Table LVST-3 are not decisions. They are potential projects identified for analytical purposes that address the objectives, not only for livestock grazing management but for other resources as well. For analytical purposes it is assumed that all projects identified would be completed within 20 years and would be implemented evenly during this time period. It is assumed that one livestock/wildlife water source would be developed per mile of pipeline. Fences would be constructed to Lower Snake River District standards to allow passage of big game. Up to 10% of the acreage identified for prescribed brush burning and prescribed brush burning and seeding in each alternative could be treated by chemical or mechanical methods, except in Alternative D where mechanical treatments would not be done. Livestock grazing would not occur for one growing season prior to prescribed burning to assure adequate fuel buildup to carry a fire. Livestock grazing would not occur for two growing seasons following prescribed burning to assure adequate regrowth of vegetation except in Alternative D where three calendar-years rest is prescribed.

Livestock Grazing

In Alternative C, the July 15 end-of-grazing-season constraint was prescribed to assure that overwinter herbaceous stubble will be left in all streamside riparian areas to provide for the desired conditions of streambank and channel stability, improved vegetation composition and structure, and proper hydrologic functioning. The July 15 date was selected as an average date to assure that the residual stubble consisting of herbaceous riparian forage species will be a minimum of six inches in height. This should allow the desired conditions to be achieved and the riparian objective to be met. If this management action is ultimately adopted and when this constraint is implemented, monitoring would determine the appropriateness of the July 15 date and whether or not adjustments in that date are needed. On those allotments where this management is applied and when monitoring shows that the desired conditions are achieved and the riparian objective is met, adjustments in livestock numbers, access or the grazing season could be made. For analysis purposes it was assumed that this management action (the July 15 end-of-grazing-season constraint), when applied, would be in place for 20 years or more. This assumption was used as a basis to compute reduced AUMs resulting from a reduced season-of-use (with a constant herd size) and was used in calculating the economic impacts. Under this assumption the economic impacts projected in Alternative C are a "worst case" analysis. The actual adverse economic impacts of implementing this management action should be less severe than those projected because grazing systems would likely be implemented gradually over the next 20 years, and beyond, which would likely allow for livestock use beyond July 15 and the return of some AUMs (up to the current active preference level). Such increases could occur as long as the riparian and other resource objectives continue to be met.

In Alternative C, the season-of-use on those lands below 3,500 feet elevation on the Snake River Plains (about 200,000 acres) was changed to winter use. The methodology for determining the season-of-use, AUM levels and range improvement projects on lands above 3,500 feet elevation was generally based on whether or not the riparian objective could be met. In allotments where riparian areas were not present, the current AUM level and season-of-use was continued. In allotments where riparian areas were in unsatisfactory condition and it was projected that the riparian objective had a high probability of being met with implementation of grazing systems and supporting range projects, the current AUM level and season-of-use was continued and range projects were identified. In allotments where it was projected that the riparian objective was not likely to be met with implementation of grazing systems and supporting range projects, no range projects were identified and the July 15 end-of-grazing constraint was applied. On some allotments projects were identified to meet other resource objectives.

The assmptions identified in the preceeding two paragraphs were also generally used for the impact analysis for Alternative D. See Chapter II Description of Al;ternatives on Page II-128 for additional management actions listed under #1 that were used in the impact analysis.

In Alternative B, the July 15 end-of-grazing constraint was not applied and the season-of-use on those lands below 3,500 feet elevation on the Snake River Plains (about 200,000 acres) remained the same as current use. A greater number and magnitude of range projects, particularly vegetation treatments, was identified. In allotments where it was projected that the riparian objective had a high probability of being met with implementation of grazing systems and supporting range projects, and where additional AUMs would become available from vegetation treatment projects, the additional AUMs were applied to suspended nonuse (up to total preference) for that allotment. Such increases could occur as long as the riparian and other resource objectives continue to be met.

In Alternative B, the actual adverse impacts on some biological resources as a result of livestock management could be somewhat less adverse than projected. This is because Alternative B prescribes development of allotment management plans, monitoring to evaluate environmental conditions and progress towards meeting objectives, and mitigation to reduce adverse impacts that may be identified. This management strategy of monitoring and mitigation also applies to impacts associated with other activities. Where monitoring identifies unacceptable adverse impacts, mitigation in the form of adjustments in management actions to reduce those impacts would be applied. Since specific mitigation measures to reduce potential impacts have not been identified in Alternative B, a more detailed analysis is not possible. Consequently, the analysis projected shows a somewhat higher level of adverse impacts on some biological resources than would actually occur.

Recreation Use

Recreation use has been projected to increase overall about 70% (74% for off-highway motorized vehicle use) between the years 1998 and 2018 (estimated from 1983-1990 SCORPs).

With the increase in recreation use, most off-highway motorized vehicle (OHMV) activity is projected to first expand southward along the Owyhee Front into the Jordan Creek GRA in the vicinity of Silver City with notable increases in OHMV use eventually reaching into the more remote areas of Juniper Mountain and other lands along the north side of the Owyhee Canyonlands.

Wild and Scenic Rivers

River segments determined to be eligible for a Congressional wild, scenic or recreational designation will be given protection until they are either released from further consideration upon plan approval by the BLM State Director for the unsuitable segments, or until Congress takes action regarding their status for the suitable segments. Management activities and authorized uses shall not be allowed to adversely affect either eligibility or classification (wild, scenic or recreational), subject to valid existing rights, until a final decision is made.

Wilderness Study Areas

All wilderness study area (WSA) lands will be managed in accordance with the BLM's Wilderness Interim Management Policy and Guidelines for Lands Under Wilderness Review (H-8550-1, 1987) (Wilderness IMP), to prevent impairment of wilderness suitability. Section 202 study lands will be managed for unnecessary and undue degradation under authority of Section 302 of FLPMA. This management of those areas under consideration for wilderness designation will continue until Congress takes action to either designate them as wilderness or to release them from further consideration.

Social and Economic Conditions

1. The current number of cow/calf pairs is the same as the 1987 Census of Agriculture estimates for Owyhee County (45,011).
2. Changes to actual AUM use will necessitate either an increase or decrease to the number of cow/calf pairs in the county.
3. Recreation use estimates are based on SCORP projections which are not dependant on BLM management actions. Each alternative has the same outcome.
4. Expenditures for range improvements (including improvements for any purpose) are in addition to current budgeted amounts and therefore, is considered an increase in Federal expenditures.
5. Livestock production costs and revenues remain constant over the life of the plan.
6. Revenues generated by cow/calf pairs is based on a study of ranching operations in Custer and Lemhi counties which indicated that gross revenues were $508 per cow/calf pair. Though it may not be exactly what those ranching operations in Owyhee county may receive, it is a good approximator for purposes of analysis without having the data readily available. See "A Social, Economic and Fiscal Analysis of Custer and Lemhi Counties, Idaho: and Models," technical report in fulfillment of cooperative agreement No. D-040-A-2-0006, March 1994. In this same study the number of AUMs (animal unit months) it takes to equal one cow/calf pair was determined to be 13.1. In other words it takes either an increase or decrease of 13.1 AUMs before one cow/calf unit is added or deleted from the herd of a ranching operation. This ratio is being used as a surrogate for this analysis of Owyhee county ranching operations. See the cited study for a further explanation of the basis for these relationships.

Alternatives Analyzed

Alternative A: This is the "Current Management" Alternative and the "No Action" Alternative under NEPA regulations. This alternative is based on implementation of the Owyhee Management Framework Plan (MFP) approved in 1981 and is a continuation of present management. This alternative also incorporates the livestock grazing program decisions that were made based on the Owyhee Grazing EIS in 1983 and on those lands within the Owyhee Resource Area addressed in the Bruneau-Kuna Grazing EIS in 1984. This alternative generally satisfies most commodity demands of the public lands while mitigating impacts to sensitive resources on a limited basis. It includes a high level of range improvement projects and a moderate level of vegetation treatments. Livestock use levels would continue at present levels subject to adjustments when monitoring studies indicate a changing resource condition or trend has occurred.

Alternative B: This alternative was developed through BLM staff interpretation and analysis of information submitted by the Owyhee County Commissioners with the assistance of the Owyhee County Natural Resources Committee. This alternative emphasizes commodity development while protecting most of the sensitive resources. It includes a high level of range improvement projects and a high level of vegetation treatments.

Alternative C: This alternative was developed by the BLM Lower Snake River District interdisciplinary planning team. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a low level of range improvement projects and a low level of vegetation treatments.

Alternative D: This alternative was developed through BLM staff interpretation and analysis of information submitted by the Desert Group, with membership representing the environmental and conservation oriented community. This alternative emphasizes improvement in ecological conditions and protection of sensitive resources with limited opportunities for commodity development. It includes no range improvement projects and a low level of vegetation treatments.

Alternative E: This alternative is the agency preferred alternative. It was developed by the BLM Lower Snake River District interdisciplinary planning team following review and consideration of public comments received on the draft document. This alternative emphasizes improvement in ecological conditions and protection of most of the sensitive resources. It includes a moderate level of range improvement projects and a moderate level of vegetation treatments.

Alternative A

Air Resources

Change Agents

Prescribed burning, mining activities, national river designations, road construction, plow and seed operations and aerial pesticide/herbicide application.

Impact Analysis

A total of 121,600 acres are identified for possible prescribed burning over the next 20 years. Up to 9,000 acres per year would be treated. Individual burns would be limited to 3,000 acres. During these operations a one to two day localized decrease in air quality would occur. By limiting the size of the burn, allowing a time interval of 72 hours between burns, conducting burns when climatic factors are optimal for good dispersion, and coordinating with other air quality influencing actions in the area at the time of the burns (to reduce potential cumulative impacts), impacts from this action would not be substantial.

Mining operations have several sources of air pollutants. Sources of particulate (i.e., dust) emissions in mining operations include drilling, blasting, and ore collection in the mine pit, plus wind erosion from ore pits, ore loading into trucks, trucks moving over haul roads, and trucks dumping ore into piles, ore loading onto conveyors and ore crushing into small processing sizes, crushed ore screening and crushed ore smoothing, waste rock smoothing in waste piles and wind erosion from waste piles.
The active DeLamar Mine is currently the major source of these types of emissions in the resource area. Air quality impacts due to the Stone Cabin Mine are addressed in the Stone Cabin Mine EIS (BLM, 1994) and will not be addressed in this document. Cumulative impacts of the DeLamar and Stone Cabin mining operations would have a insubstantial impact on local air quality in the area. Impacts projected from small scale mining operations would not be substantial due to the limited size and nature of these operations, although if in the same vicinity of the DeLamar and Stone Cabin sites they would add to the cumulative impact.

Designation of 94 miles of the South and East Forks of the Owyhee River as a national river would result in eventual withdrawal of these reaches from mineral entry. This would preclude any impacts on air quality associated with mining or mineral exploration.

Impacts from road construction, plow and seed operations, and aerial application of pesticides/herbicides would result in minor short-term impacts on air quality dependent on size of the operations and adherence to best management practices during the operations.

Conclusion

The overall impact of Alternative A on air quality would not be substantial.

Meeting the Objectives

Objective AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

If proper procedures are followed and BMPs implemented the objective would be met in Alternative A.

Soil Resources

Change Agents

Livestock grazing, livestock water developments, OHMV activities, fluid mineral and locatable mineral activities, rights-of-way, special designations and vegetation treatments.

Impact Analysis

In Alternative A, it is estimated that broad based erosion rates would remain the same on the rhyolite/basalt plateaus and Owyhee (mountain) uplands. Broad based erosion rates for the low elevation areas draining into the Snake River could increase slightly. These broad based increases in soil erosion would be in part due to the continuing increase in poor ecological condition, particularly where perennial range species give way to increaser shrubs/annual grass species and the inability for microbiotic soil crusts to reestablish. The area most susceptible to erosion is the Snake River Sediments and to a lesser degree the granitic mountains. With current management the Snake River Sediments area would show the greatest erosional increases.

Projected livestock stocking levels and grazing management practices over a 20-year period would contribute to the broad based erosion level impacts. Current grazing practices could result in the following impacts: streambank stability problems, soil compaction, soil surface mechanical disturbance, vegetative degradation (including litter loss), and decrease in soil productivity.

Development of livestock water projects could result in degradation of the soil resource at and in the general vicinity of these sites. This degradation would be in the form of soil compaction, mechanical disturbance of the soil surface by hoof action, and loss of vegetative protective cover/litter. The probability of this occurring is high. By selecting sites that are not in compaction prone soils some of these impacts could be mitigated.

Impacts on the soil resource in the form of soil erosion, loss of productivity, and soil compaction from OHMV activities could increase with the current ORV Management Plan. A continued "Open" designation on 420,434 acres would account for this impact, especially in the Owyhee Mountains, South Mountain and Juniper Mountain where OHMV activity is increasing. Impacts would continue to be substantial within the Owyhee Front SRMA and Fossil Creek OHMV management unit. OHMV use could cause mechanical disturbance to the soil surface and destruction of the protective vegetative cover (this includes vascular plants and soil stabilizing microbiotic soil crusts). Mechanical disturbance from OHMV activities could result in destruction of soil aggregates, formation of channels, and a sloughing of washes. More heavily utilized trails could widen and become more deeply moguled and rutted as use levels increase. With the projected increase in casual and competitive OHMV activities, mitigating measures would be needed to protect the soil resource (especially on the highly erosive soils).

Fluid mineral and locatable mineral activities could cause substantial soil erosion (and subsequent sediment delivery and productivity losses) depending on the size and scope of the project. Access road construction, drill pad installation, mineral extraction actions, and other surface disturbing activities would be the primary causes. Impacts on the soil resource from these actions would be localized to the specific area of disturbance. The extent of these impacts would be determined by the amount of activity, advances in mining and mitigation techniques, type of operation, location, and other factors. Overall, impacts on soils attributed to mineral activities over the next 20 years is projected to increase.

Right-of-ways could cause varying degrees of disturbance. No substantial impact on soils is projected from construction of pipelines, powerlines and telephone lines after construction is finished. Roads, especially unsurfaced roads, would cause both short and long-term erosion problems.

Designation of 94 miles of national rivers would result in withdrawal of 29,520 acres of associated lands from mineral entry and avoidance of potential impacts associated with these activities as projected above in the minerals activities analysis. It would also result in strict limitations on vehicle travel and associated impacts as projected in the above OHMV activities analysis. This would result in a beneficial impact on the soil resource.

Vegetation treatments on an estimated 138,600 acres (prescribed burning, 108,200 acres; burn and seed, 13,400 acres; and woodland harvest, 17,000 acres) according to established standards and the Owyhee Juniper Woodland Management Plan is prescribed in Alternative A. Prescribed fire would be the treatment method most often used. Other treatment methods would include chemical and mechanical. The projected acreage for chemical and mechanical treatments is about 12,000 acres over the next 20 years. Vegetation treatment projects would cause varying degrees of disturbance. This would depend on the type and size of the treatment (and, over the long term, the success). By following established BMPs, impacts from these treatments could be reduced. Soil erosion (by wind and/or water) and subsequent sediment delivery and loss of productivity would be a short-term impact. Ash from prescribed fire treatments may act as sediment (moved by either wind and/or water) and affect water quality. After successful revegetation/restoration occurs a long-term improvement in watershed condition could result.

Conclusion

The overall impact of Alternative A on the soil resource would be slight with some isolated areas (OHMV activity on high erosion hazard soils) having a moderate adverse impact. Broad based erosion levels would remain the same on the high rhyolite/basalt plateaus and the Owyhee (mountain) uplands. Broad based erosion levels could increase slightly in the low elevation areas draining into the Snake River (Snake River sediments area most affected). Streambank stability would improve where there is an effective grazing system or protection.

Meeting the Objectives

Objective SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

It is estimated that this objective would be met, or making significant progress toward meeting it, on up% to 70% of the resource area in Alternative A. This estimate is based on the projection that the actions implemented under this alternative would provide, in many cases, adequate amounts of ground/canopy cover (determined on an ecological site basis) to support proper infiltration, maintain soil moisture storage, soil productivity, and stabilize soils.

Objective SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

It is estimated that this objective would be met, or making significant progress toward meeting it, for up to 65% of these situations (streambanks being a major source) once effective management systems/protection have been implemented under this plan. Many of the roads and trails (particularly those that are on soils with high erosion hazard ratings) would continue to be a source of localized accelerated soil erosion. The requirement/implementation of BMPs at the individual project planning level will prevent future problems.

Water Resources

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Livestock grazing impacts on water quality would change very little from the current situation over the short term (5 years). Over the long term (20 years), an estimated 47% of the BLM stream miles would be in satisfactory condition in Alternative A if grazing were the only impact analyzed. Most of this improvement would result from implementation of effective livestock grazing systems. Improved riparian vegetation composition, density, structure, vigor and cover would lead to proper functioning and satisfactory conditions on these streams. As the quality and quantity of vegetation and root mass improves, streambank stability would improve as well. Stable banks would result in reduced sediment and improved channel shape. The combined improvement in vegetation and streambank stability would result in less sedimentation, reduced solar heating of the water, improved streambank water infiltration and storage and generally better habitat for aquatic organisms. Water quality would improve to meet State water quality standards on these streams in Alternative A.

The major nonpoint source water quality impact from historic mining would be sedimentation. Current mining activities are regulated by numerous agencies to prevent nonpoint source pollution. Nonpoint source impacts from historic mining activities would continue, but would be slight as most historic disturbance has stabilized over the years. Impacts would be located primarily in the Jordan Creek and Williams Creek drainages.

The major point source water quality impact from historic mining would be acid rock drainage. The major pollutants associated with acid mine rock drainage would be low pH and heavy metals introduced as water washes through mine waste piles. Current mining activities have authorized mining and reclamation plans to prevent point source pollution. Adverse impacts from historic mining activities would continue at the current rate, and would be located primarily in the Jordan Creek and Williams Creek drainages.

OHMV use and associated impacts on water quality would increase over the next 20 years as about 731,000 acres would be classified as "open" or having few limitations in Alternative A. OHMV activities would reduce vegetative ground cover and disturb the soil surface resulting in increased upland erosion. Over time, accelerated erosion combined with overland flow runoff events would result in increased sediment transport to perennial streams. Once in the stream, sediment accumulates on the channel bottom impacting aquatic organisms, which rely on clean, well oxygenated channel substrates for all or part of their life cycles. Impacts would be primarily located along the Owyhee Front, but would expand to the southern portion of the resource area over 20 years.

Prescribed burning would occur on 121,600 acres over the next 20 years. The primary water quality impact from prescribed burns would be increased sediment. Removal of vegetation would result in increased potential for precipitation runoff, and reduced infiltration. During periods of runoff, water would accumulate in ephemeral and intermittent drainages where increased sediment transport to perennial streams would occur. Once in the stream channel, sediment has an adverse impact on aquatic organisms and water quality in general. Sediment transport from burned areas would generally be a short-term impact. Soil stabilization would improve over time as vegetation reestablishes on the burn site. After five years, a burn site would have little impact on water quality.

Water rights would be obtained on all water development projects. Minimum instream flow applications would be filed on appropriate high value streams.

Conclusion

Livestock grazing systems would result in significant long-term improvement in stream conditions in the resource area. The reduction of current hot-season grazing practices would allow the needed changes in riparian vegetation composition, vigor, density, and structure to shade the stream and help maintain cooler water temperatures. Grazing systems combined with other management actions would result in an estimated 45% of all BLM stream miles meeting water quality standards over a 20 year period.

Meeting the Objectives

Objective: WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

This objective would be met on an estimated 45% of all BLM stream miles.

Objective: WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

In Alternative A, water uses on all streams would be provided for through compliance with State water law and in accordance with State licensing processes.

Vegetation

Change Agents

Livestock grazing, vegetation treatments, weed control, livestock water developments, fencing, wild horse management, OHMV activities, and mining activities,.

Impact Analysis

The primary impacts to the vegetation resource will be as a result of livestock grazing practices. Based on current estimates of ecological status, the continuation of current livestock grazing practices, systems, seasons-of-use, and stocking levels would continue to adversely impact vegetation. Grazing prior to July 15 has the potential to adversely impact native upland vegetation, especially in those areas in an early seral stage or located below 3,500 feet elevation, as livestock use would occur during the plant's active growth and food storage phase. Although most plants are sensitive to grazing during this time period, studies have shown that bluebunch wheatgrass is extremely sensitive to grazing during active growth (Anderson, 1991). This early use has the potential to prevent substantial improvement on those range sites where bluebunch wheatgrass is the predominant grass species. These sites cover over 50% of the resource area.

Studies have also shown that livestock grazing after July 15 can adversely impact riparian/wetland areas as livestock tend to congregate in riparian areas during the hot summer months. This late use has the potential for overuse of riparian vegetation such as willows and sedges. By removing sedges during this time period the potential for streambank erosion during spring runoff is increased. Overgrazing willows also has the potential to eliminate entire stands.

Based on this, long-term beneficial impacts on vegetation can only be projected if adjustments in season-of-use, livestock numbers, and grazing practices occur, along with implementation of grazing systems that would allow for improvement in upland and riparian vegetation. Under Alternative A, these adjustments would only occur after completion of allotment specific activity plans. However, based on cur-

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rent workloads and other work priorities, it is projected that very few activity plans would be developed and implemented in the next 20 years. Overall long-term impacts from current livestock grazing practices are projected to be adverse unless allotment specific activity planning can be completed.

When any species or class of vegetation is allowed to dominate a large area, ecological diversity, forage production, and plant vigor will be adversely impacted. At the same time if one species or class of vegetation is eliminated or substantially reduced over a large area similar impacts could be expected. Prescribed burning and juniper woodcuts are tools for treating vegetation to maintain the preferred mix of habitat components, meet specific management objectives, or obtain desired plant communities within a given area. In Alternative A 65,900 acres of sagebrush/grass communities and 72,700 acres of juniper are identified for treatment.

Short-term impacts (2-3 years) from prescribed burns (121,600 acres) and juniper woodcuts (17,000 acres) would be adverse as vegetative structural diversity is decreased by reducing or eliminating the predominant species (sagebrush or juniper) at each site. Long-term effects would be beneficial by improving ecological diversity, ecological site condition, forage production, and plant vigor of these selected areas.

Seeding 13,400 acres would adversely effect (short-term and long-term) the vegetative diversity of those areas where native species would be replaced with non-native species. Seedings would likely convert mid seral status range sites to treated sites. Depending on the initial success of the seeding, degree of livestock grazing, effectiveness of the initial control of woody species, and amount of maintenance performed over time, the life span of a seeding could exceed 30 years. Because some sagebrush eventually reinvades most treated sites, maintenance of these seedings could be necessary every 10-20 years to control brush and extend the life of those seedings.

Seedings could have a beneficial impact on an area if they are used to stabilize soils or to reestablish native species not projected to become established naturally. However, overall impacts on vegetation are projected to be adverse.

Noxious weed control would have a slight beneficial effect on vegetative diversity throughout the resource area by maintaining the integrity of existing native plant communities by reducing or eliminating undesirable species. Beneficial impacts, through noxious weed control, are also projected in those areas where OHMV use occurs. OHMV activity has the potential to remove vegetation which then allows noxious weeds to become established at those sites.

Development of 67 livestock water sources would have site specific adverse impacts (short-term and long-term) on vegetation through increased grazing pressure and livestock concentration near available water. Developing springs and pipelines could also result in reduced water availability at spring sources or streams resulting in degraded riparian/wetland habitat. These adverse impacts could be partially offset by reduced grazing on vegetation in other portions of the allotment.

Construction of 137 miles of riparian/wetland exclosure fences would have beneficial impacts within these areas. By excluding livestock, these exclosure fences would allow for improvement within these riparian/wetland areas.

Construction of 79 miles of pasture division fences would have a beneficial impact on vegetation by allowing grazing systems to be implemented that could provide rest or deferment within an allotment. Additional pastures should then provide improved livestock distribution and utilization levels within these areas.

Adverse impacts are projected from these fences due to livestock trails that normally become established along fence lines and the potential for construction and maintenance roads along these fences. These roads then have the potential to become areas for OHMV activity. Overall, impacts from these fences are projected to be beneficial.

Impacts on vegetation caused by wild horses would not be significant. Wild horses would graze season long but at levels determined not to be detrimental. As wild horses increased their numbers would be managed or some gathered to maintain appropriate numbers of wild horses and not exceed carrying capacities.

Maintaining existing OHMV trails at current levels of use would have limited additional impacts on vegetation. However, due to the widening of existing trails, the formation of moguls, and the conversion of motorcycle/ATV trails to jeep trails, unauthorized trails are becoming established. Unauthorized OHMV use is adversely impacting vegetation through damage to the foliage, root systems, and seedlings, and the uprooting of small plant cover and disruption of root systems of larger plants by sheer stress induced in the soil (Wilshire, Shipley and Nakata 1978). This disturbance then causes a loss of native vegetation, increases soil erosion, and allows for invasion by noxious weeds. Although most disturbance would be linear, with limited acreage being affected, concentrated use areas would also adversely impact vegetation around OHMV trailheads (developed and undeveloped) in the Snake River geographic reference area. As the population in southwestern Idaho continues to increase, it is projected that existing trails would deteriorate from increased use, causing more unauthorized trails to become established. It is also projected that OHMV activity would move south in the Owyhee Mountain Range, particularly around the Silver City area, causing new trails to form, leading to additional loss of vegetation.

Mineral activities have the potential for adverse impacts on vegetation on a site-specific basis. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations. Refer to the Stone Cabin Mine EIS for a detailed analysis of mining impacts.

Conclusion

Ecological conditions, especially on those sites currently in an early seral stage, are projected to change only minimally within 20 years. Factors such as climate, soils, competition from other species, available sources of seed on site, livestock season-of-use, and livestock stocking levels will determine the amount of time needed to move from one seral stage to the next. Studies have shown that even with complete livestock removal, succession can be extremely slow, sometimes requiring 20-40 years (Sanders and Voth 1983 and Tisdale, Hironaka, and Fosberg 1969). In Alternative A, grazing preference would remain at approximately the current level of 135,116 AUMs for the next 20 years.

Some beneficial impacts are projected in Alternative A through vegetation treatments, noxious weed control, and improved livestock management as a result of allotment specific activity planning.

Meeting the Objectives

Objective VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

This objective would not be met but progress would be made toward meeting the objective in Alternative A. The table below outlines the projected changes in ecological status for this alternative. These projected changes are based on the prescribed burns, woodcuts, and seedings that are proposed under this alternative as well as changes proposed for livestock management.

	Baseline		20-Year Projection	
Seral Stage	Acres	Percent	Acres	Percent
Early seral	565,830	43%	557,330	43%
Mid seral	555,130	43%	496,539	38%
Late seral	137,797	11%	198,858	15%
PNC	2,203	<1%	2,203	<1%
Treated	37,814	3%	43,844	3%
Total	1,298,774	100%	1,298,774	100%

Objective FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Alternative A would not meet the objective to retain forest land biodiversity, by continuing present management which is to provide commercial forest resources as the market demands.

Objective FORS 2: Use juniper harvesting to help achieve a desired plant community.

Alternative A would meet the objective of achieving desired plant communities in the resource area by controlling juniper by harvest methods on 17,000 acres, by prescribed burning 55,700 acres of juniper dominated sites and by burning an additional 65,900 acres of mostly sagebrush dominated sites being encroached upon by juniper within 20 years.

Riparian-Wetland Areas

Change Agents

Livestock grazing, mining activities, OHMV activities, livestock water developments and land tenure adjustments.

Impact Analysis

Livestock grazing impacts on riparian areas would change very little from the current situation over the short term. Past and current grazing practices have allowed for too much use during the hot season (July-September). The rate and direction of change in riparian condition is largely dependent on the amount of vegetative regrowth occurring after the grazing season ends and the amount of physical damage (e.g., bank trampling and shearing) which occurs (BLM 1989). Myers (1989) suggests that a minimum of 30-35 days was required for adequate vegetative regrowth to occur after suspending livestock use and before the dormant season. Clary and Webster (1989) recommend leaving a minimum 6 inch herbaceous riparian stubble height at end of the growing season or grazing season, whichever is later, on streams providing sensitive species habitat. Myers (1989) also found a lack of riparian area improvement when cattle were allowed to graze more than a total of 28 days or 12 days during the hot season (July 1 - September 15) on streams similar to those found in the resource area. A Bureau technical reference (BLM 1989) on riparian grazing management reports that use of willows during the summer months is destructive to willow growth and regeneration. Lower Snake River District inventory information indicates moderate to heavy use of willows by livestock occurs around mid-July. Myers found cattle heavily use willows when use of herbaceous plants exceeds 60%. Current livestock grazing practices allow for utilization of riparian vegetation by livestock to exceed these recommended limits.

Over the long term (20 years), grazing systems would be designed and implemented to improve riparian vegetation condition and reduce streambank trampling. Improved riparian vegetation composition, density, structure, vigor and cover would lead to proper functioning and satisfactory conditions on these streams. As the quality and quantity of vegetation and root mass improves, streambank stability would improve as well. Stable banks would result in reduced sediment and improved channel shape. The combined improvement in vegetation and streambank stability would result in less sedimentation, reduced solar heating of the water, improved streambank water infiltration and storage and generally better habitat for aquatic organisms. An estimated 47% of riparian miles would be in satisfactory and/or proper functioning condition at the end of 20 years if grazing were the only impact analyzed.

Most riparian impacts from historic mining activities would result from the loss of topsoil. Current mining activities are regulated by numerous agencies to prevent undue riparian degradation. Current impacts would continue primarily in the Jordan Creek and Williams Creek drainages.

Adverse impacts on riparian areas from increased levels of OHMV use would occur on about 731,000 acres classified as "Open" or having few limitations on OHMV use in Alternative A. Most impacts from OHMV use would result in increased erosion both in the uplands and along stream courses as vegetative cover, and soil and streambank stability are decreased. This would occur primarily in intermittent drainages. Over time, accelerated erosion combined with high runoff events would result in increased sediment transport to perennial streams. Sedimentation would impact aquatic organisms which rely on clean, well oxygenated channel substrates for all or part of their life cycles. These impacts would occur along the Owyhee Front but would probably expand to southern areas over the next 20 years.

The design of livestock water developments would determine their impact on riparian values. Some developments could have both adverse and beneficial aspects. Designs that exclude livestock from the riparian portion of a development, reducing or eliminating grazing use and soil compaction, would result in improved conditions. Developments that divert water from a stream or spring would adversely impact riparian values by reducing flow rates or dewatering the source. Reservoirs could have an adverse impact by retaining water which would otherwise result in over-bank flows downstream. Periodic flooding of streambanks is important in building and maintaining riparian areas. Benefits from reservoirs would result if late summer streamflows are augmented with previously stored water.

Land tenure adjustments to consolidate public lands would generally benefit riparian values. Newly acquired land would usually be managed with special land use restrictions which benefit riparian areas.

Conclusion

Implementation of grazing systems would result in improved buffering and filtering function, increased streambank stability, and improved stream channel shading which would all contribute to improved condition. These grazing systems combined with other management actions would result in satisfactory conditions on an estimated 45% ofall BLM riparian miles over a 20 year period. Continuation of current livestock grazing practices on the remaining riparian miles would not result in significant improvement in riparian area conditions.

Meeting the Objectives

Objective: RIPN 1: Maintain or improve riparian-wetland area to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

This objective would be met on an estimated 45% of all BLM riparian miles in Alternative A.

Wildlife Habitat

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activities, OHMV activities, recreation use, national river designations, wildlife water developments, wildlife habitat exclosures, waterfowl nesting structures, land tenure adjustments and land use authorizations.

Impact Analysis

Although various levels of livestock grazing have been shown to benefit some wildlife species including mule deer, some ground foraging and insectivorous birds, some types of lizards and insects and others; research has shown that grazing is generally detrimental to the large majority of species and habitats. As summarized by Fleischer (1993), deleterious effects of grazing have been observed in all vertebrate classes and a wide variety of western ecosystems. These effects include loss of biodiversity; lowering of population densities; disruption of ecosystem function including nutrient cycling and succession, change in community organization and change in physical characteristics of both terrestrial and aquatic habitats. Another recent review of the available literature revealed that within riparian woodlands 8 of 43 species of neotropical migrants (birds) responded positively to grazing while 17 species were negatively affected and 18 were unresponsive and within shrub steppe habitats while only 3 of 23 species probably have been positively affected 13 have probably been negatively affected and at least 7 have demonstrated mixed responses to grazing (Bock et al. 1993). Studies in California and Nevada by Page et al. (1978) and in Southeastern Oregon by Taylor (1986) demonstrated that species richness was significantly lower on grazed sites vs. ungrazed habitats. Duff (1970) demonstrated a 350% increase in wildlife use and diversity after resting a riparian habitat in Utah for eight years. Busack and Bury (1974) found in the Mojave Desert that lizard abundance was two times and biomass was nearly four times higher on ungrazed sites.

Although some habitat improvement is expected, livestock grazing as prescribed under this alternative, is projected to contribute substantially to maintaining mostly unsatisfactory conditions for many species. An additional 30% or 196 miles of riparian habitat is projected to improve from unsatisfactory to satisfactory condition within the next 20 years. This would result in a total of 45% or 293 miles in satisfactory condition leaving 55% or 359 miles in unsatisfactory condition. As in the past, livestock grazing would have the greatest adverse impact within riparian habitats because of their crucial importance to a large number and diversity of wildlife and because this is where livestock use is generally heaviest and most concentrated.

Development of 67 livestock water projects (45 springs, 19 reservoirs and 3 pipeline troughs) is projected to result in deteriorated habitat conditions for most wildlife species within the vicinity of these developments. Development of springs and pipelines could also result in reduced water availability at spring sources or streams resulting in degraded riparian/wetland species habitat. Adverse impacts could be offset to some degree by reduced livestock pressure on habitats in other portions of the grazing allotment and possibly by allowing for a wildlife species to expand its range into a previously unusable habitat. Reservoir development could result in additional habitat for waterfowl, amphibians and a diversity of other wildlife. Habitat benefits could be greatly enhanced if all or a portion of the reservoir is fenced to exclude livestock or islands are developed, although this is typically not done. The overall impact of livestock water development to most wildlife species and in most areas, based on current management, is projected to be adverse.

Construction of 79 miles of pasture fence according to standard Lower Snake River District wildlife specification would probably not have a significant impact on wildlife movements within higher elevation deer, elk and pronghorn summer range and could, in some cases, benefit overall habitat conditions by providing for better livestock management. Fencing could, however, adversely impact big game within lower elevation winter ranges by restricting movements during years of heavy snow accumulation. Fencing would also result in degraded habitat for most species within a narrow corridor along both sides of fences where cattle trailing is most concentrated. The overall long-term impacts of fence construction is projected to be slightly beneficial as a result of improved livestock management.

Treatments (cutting and burning) to eliminate 50,420 acres of western juniper (about 20% of existing juniper woodlands) according to established Owyhee Juniper Woodland Management Plan standards is projected to have a mostly beneficial long-term impact on many wildlife species, especially big game, by increasing forage production and vigor and improving habitat diversity where dense juniper is limiting understory vegetation. Very little information is available concerning the impacts of Western juniper treatments on nongame wildlife, although surveys conducted within the Owyhee and Bruneau Resource Areas have shown that bird species diversity and numbers are greatest in untreated juniper stands followed by prescribed burns and woodcuts. These surveys were limited in scope, however, and were not conducted in stands with little or no understory vegetation. Woodcut treatments have the advantage of allowing for strict control of size, shape and location of the treatment area and permitting understory vegetation, especially shrubs, to be left relatively undisturbed. This allows for retention of large, interconnected blocks of juniper outside the treatment area while, in many cases, increasing forage and shrub cover within the treatment area. Large interconnected blocks of habitat are important as travel, migration, and recolonization corridors and as habitat for forest-interior species and species with large home range requirements (Noss 1991). Woodcuts have the disadvantage of not usually containing standing dead trees (snags) which could account for at least some of the observed lower bird species diversity and densities. Burning juniper would result in reduced shrub and tree densities within the treatment area for many years but could help establish or improve habitat for pronghorn and other species adapted to more open habitats. Shrub and tree density would gradually increase over time unless treatment areas are periodically reburned to control reinvasion of juniper and shrubs. Wildlife species diversity can initially be projected to decline along with the loss of trees and shrubs. See Chapter IV -Introduction - Changes in Ecological Status for the assumptions used in this paragraph and the following paragraph.

Treatment to eliminate 39,540 acres of sagebrush habitat (less than 7% of existing sagebrush habitat) could also have short-term and, possibly, long-term adverse impacts on overall wildlife species diversity within the treatment area as vegetative structural diversity is decreased. However, as with juniper treatment, this would depend upon the size and shape of the burns, preburn shrub cover and frequency of reburns to control shrub reestablishment. Overall impacts on sage grouse and other sagebrush dependant species should be minimal or beneficial if existing treatment standards are strictly applied. The values and impacts of vegetation treatments on wildlife would also be highly dependant upon long-term grazing management practices. These areas are very attractive to livestock, and native herbivores due to the initial increase in succulent forage and, without close monitoring and proper management, could easily suffer from overuse.

Continuing mineral exploration and development and materials sales is projected to have an increasingly detrimental impact on many wildlife species and habitats as more areas are disturbed over the next 20 years. The extent of habitat impacts would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term, and usually, long-term habitat loss at exploration, mining and material removal sites, increased public access associated with exploration, assessment and mining roads and ways and indirect disturbance to wildlife within the vicinity of mines and exploration operations. See Map LOCM-2 for locatable mineral potential.

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A projected 74% increase in OHMV activity by the year 2018 would likely result in a concurrent increase in adverse impacts to many wildlife species and habitats under the current ORV Management Plan. Most activity and impacts are projected to occur within the Snake River GRA which contains the Owyhee Front SRMA and Fossil Creek OHMV Management Unit. Continuation of the "Limited" designation in these areas could result in a steady increase in the number of acres of wildlife habitat lost or degraded by concentrated OHMV use if new areas are disturbed. Funding and personnel levels are currently well below that needed to adequately patrol and enforce OHMV regulations at current use levels. As use levels increase, our ability to regulate this use would continue to decline, leading to increasing levels of habitat degradation. The areas of greatest potential impact would be within a three mile radius of the three major trailheads where OHMV activity is most concentrated. It is projected that 50% of the casual OHMV activity would occur within this 18,000 acre area.

Depending upon selected course routes, organized racing events can, in some cases, impact species and habitats more severely than casual, weekend type OHMV activity. Factors contributing to these impacts are as follows: 1) races concentrate large numbers of OHMVs and spectators resulting in much higher noise levels and increased levels of habitat disturbance, 2) they often include areas which would normally receive only light use, 3) they often concentrate use by employing multiple passes (loops) through the same areas and 4) they can result in additional long-term casual use by race participants and spectators.

The Kane Springs area at the upper end of the West Rabbit Creek drainage (Rabbit Creek OHMV Trailhead area) provides crucial winter habitat for an estimated 75 pronghorn. Other, less concentrated winter habitat occurs primarily south of highway 78 between Reynolds Creek and Castle Creek, below about 4,000 feet elevation. Wintering pronghorn normally inhabit these areas from November through March depending upon the severity of winter weather. Winter is a stressful period for pronghorn and disturbance from concentrated OHMV or other human activity would result in additional energy expenditures possibly resulting in increased winter mortality from malnutrition (Salwasser, 1980). Unnecessary winter energy expenditures could also lead to reduced fawn production. Disturbance of fawning habitats is also a concern within the assessment area. Although most specific fawning habitat has not been identified it generally occurs at elevations above 3,500 feet primarily within grassland and low sage vegetation types. Concentrated OHMV activity in these areas could result in reduced fawn survival and abandonment of otherwise suitable habitat.

Most winter mule deer habitat is located within a narrow band along the lower foothills of the entire Owyhee front and along the Snake River and all other major drainages. This area supports a large but mostly disperse population of deer from November through March. Impacts from OHMV races and associated casual use during this period would be similar to those projected for pronghorn.

An area of concentrated sage grouse leks (display grounds) and associated nesting habitat occurs south of highway 78 between Fossil Creek and Castle Creek. Breeding and nesting activity takes place from late February through May. OHMV races and associated casual use could result in substantial loss of production either from direct nest destruction or nest abandonment during egg-laying (Call, 1974). Frequent prolonged disturbance of a lek could conceivably result in abandonment of the lek and displacement of all nesting associated with that lek.

Chukar are found within and adjacent to steep canyon habitats throughout the Owyhee front. They frequent riparian and wash habitats adjacent to suitable escape cover when water is available and are probably most vulnerable to disturbance in these areas. Frequent disturbance by OHMVs could cause chukar to avoid or abandon these key use areas and result in reduced numbers and distribution.

The Snake River GRA contains nesting, wintering or yearlong habitat for a large diversity of raptors with highest concentrations occurring within the Snake River Birds of Prey National Conservation Area (SRBOPNCA). Several studies have identified impacts to raptors including nest abandonment resulting directly from noise generated by OHMVs and by other activities associated with OHMV use such as camping and shooting (Harmata et al. 1978). Other impacts include direct death loss from shooting (Ellis et al. 1969), reduced prey base and disruption of foraging activities resulting in possible nest failure or fewer young fledged.

Amphibians, reptiles, birds and small mammals have all been shown to suffer serious impacts from OHMV activity. Studies conducted in the desert southwest have demonstrated severe effects of OHMVs on wildlife of arid regions through direct mortality, harassment, noise and habitat destruction (Webb and Wilshire 1983). Most studies to date have been conducted in southern California desert scrub, dune, wash and riparian habitats. Use levels in these study areas were higher than current or forecasted levels within the resource area but are still useful in projecting the types of impacts that could occur in these and other arid and semi-arid habitats. One study by Luckenback and Bury (1983) in the Algones Dunes found that for lizards there were 1.8 times the number of species, 3.5 times the number of individuals and 5.9 times the biomass on control plots than were found in OHMV-impacted areas; for mammals there were 1.5 times the number of species, 5.1 times the number of individuals and 2.2 times the biomass in control plots than in OHMV areas; and for arthropods, tracks were 24 times more abundant in control plots than in impacted areas. Other studies have shown OHMVs linked to declines of amphibians such as the Couch's spadefoot toad (Bondello and Brattstrom 1979). Luckenbach (1978) found a 50% reduction in the number of breeding bird species and a 24% reduction in the number of breeding bird pairs within a moderate OHMV use area from those found in slightly used control plots in creosote shrub habitats. Another study in creosote shrub habitat found an average of 1.63 more species of reptiles and 1.25 more species of small mammals and 1.8 more vertebrates on control sites than on OHMV-used plots (Bury et al. 1977). A study for the BLM in Afton Canyon, California demonstrated that a riparian area open to OHMV use supported significantly fewer species and lower numbers of birds than a similar nearby area which was closed to all vehicles (Weinstein 1978). A study of the impacts of OHMVs on bird density and diversity in desert wash habitats revealed that the breeding bird density was 23 times that of OHMV-used plots and there was a 90% reduction in the number of breeding bird species. A number of other studies have demonstrated decreases in density and diversity of desert birds and mammals (Busack and Bury 1974, Luckenbach 1978 and others).

Continued "Open" designation on 420,434 acres within the remainder of the resource area could also result in increased habitat degradation and wildlife disturbance. The intensity of use is projected to be much lower throughout most of this area than in the Snake River GRA, however, seasonal heavy use would occur primarily within popular hunting areas such as the Owyhee Mountains, South Mountain and Juniper Mountain. OHMV use during hunting seasons has increased in recent years and would likely continue to increase. With no restriction on where OHMV use could occur, the potential for habitat destruction and wildlife harassment and disturbance would increase. Each new set of tracks established by cross-country OHMV travel could become a permanent trail, leading to an ever-expanding network of disturbance.

Implementation of the Back Country Byways program, development and implementation of management plans for nine Special Recreation Management Areas, upgrading or development of recreational facilities at seven recreation sites and construction of foot and equestrian trail systems would likely result in increased public use at, and in the general vicinity of, each of these sites. This is projected to result in increased physical habitat deterioration and disturbance and displacement of many wildlife species within the areas of increased use, although, by concentrating use in these areas unregulated use elsewhere could decline. Boyle and Sampson (1985) documented a wide variety of adverse impacts to all major wildlife taxa and relatively few beneficial impacts for most nonconsumptive recreational activities. Special restrictions on vehicle access and commercial recreation permitting within SRMAs would limit adverse impacts associated with these activities, however, overall cumulative short-term and long-term impacts of these actions is projected to be slightly adverse because of the projected additional visitor use generated by each of these. Impacts would continue to increase each year as visitor use increases.

The increasing number of organized equestrian events and commercial guiding and outfitting services would also result in increasing impacts to wildlife and wildlife habitats. As with OHMV activities, equestrian events would result in concentrated use and associated habitat damage and wildlife disturbance. Guiding and outfitting activities, while resulting in little physical habitat damage, could also result in localized disturbance and displacement of wildlife, especially near campsites. They could also contribute to additional recreational use from clients returning to the area on their own. Short-term and long-term impacts are projected to be slightly adverse and impacts would likely increase over the next 20 years.

Designation of 94 miles of the South and East Forks of the Owyhee River as wild, scenic or recreational river would result in withdrawal of these reaches from minerals exploration and mining, closure to mineral materials sales and fluid minerals leases and avoidance of potential impacts associated with each of these activities. It would also result in strict limitations on vehicle access and travel and commercial recreation permitting, thereby limiting impacts typically associated with these actions. Overall short-term and long-term impacts to wildlife are projected to be beneficial.

Construction of wildlife water developments would result in extended wildlife use of habitat that is otherwise suitable but seasonally unavailable due to a lack of dependable water. Primary benefits would be to big game and upland game species but most other species would benefit to some degree. Habitat exclosures which would continue to be constructed primarily to protect and enhance relatively small areas of riparian/wetland habitats would benefit a large diversity of wildlife species but improve only a small percentage of all riparian habitat within the resource area within 20 years. Construction of riparian pasture fences would result in similar benefits. Development of waterfowl nesting islands, platforms and boxes would provide additional nesting opportunities for a diversity of waterfowl and shorebirds at larger reservoirs and along rivers and streams where nesting habitat is limited. Short-term and long-term impacts of these actions would be beneficial.

Land tenure adjustments to consolidate public lands through State or private exchange could result in either a net beneficial or adverse impact to wildlife depending upon which parcels are involved. Even though exchanges must result in the acquisition of higher value lands not every resource value must be higher. Land acquisitions via direct or indirect purchase are most often done in order to acquire high quality wildlife and recreation lands and are normally managed with special land use restrictions and would, therefore, normally benefit wildlife.

Land use authorizations (rights-of-ways, leases and permits) would continue to have a mostly adverse impact on wildlife as habitat is dedicated to other uses. Most land use authorizations result in long-term alteration or destruction of habitat for a variety of wildlife species. Although most affect a relatively small area, the cumulative impact over 20 years could be significant. Short-term and most long-term impacts would be adverse.

Conclusion

The overall short-term and long-term impact of Alternative A on wildlife resources is projected to be adverse based upon continuation of current livestock grazing levels and practices, construction of additional livestock management facilities, continued loss of habitat from minerals related activities, increasing levels of OHMV and other recreational activities and new land use authorizations. These adverse impacts would be moderated to some degree by beneficial impacts associated with some vegetation treatments, 94 miles of wild, scenic and recreational river designations, continuing development of riparian exclosures and pastures and development of wildlife waters and waterfowl nesting structures.

Meeting The Objectives

Objective WDLF 1: Maintain or enhance the condition, abundance and distribution of plant communities and special habitat features required to support the large diversity and desired numbers of wildlife inhabiting public lands within the Owyhee Resource Area.

This objective would not be met under this alternative. While adequate habitat should be maintained to sustain current population levels and provide for modest increases in populations of big game and many other species, habitat for many others are likely to continue to be degraded or maintained in less-than-desirable condition. Although some improvement would occur, concentrated livestock use of many riparian/wetland habitats would continue to have the greatest overall adverse impact. Inadequate restrictions on increasing levels of OHMV activity, increases in other recreational activities, development of additional livestock management facilities, some vegetation treatments, minerals exploration and development, and some land tenure adjustments and other realty actions would also contribute to this objective not being fully met.

Fishery Habitat

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Livestock grazing impacts would not significantly change from the current situation over the short term (5 years). Continued livestock use at current levels would prevent habitat improvement. Stream channels which currently provide suitable fish habitat are generally inaccessible to livestock and would not undergo accelerated deterioration.

Over the long-term (20 years), as riparian condition improves, an estimated 36% of all stream miles would be in satisfactory fish habitat condition if grazing were the only impact analyzed. Improvement would result from implementation of riparian grazing systems. Improved riparian vegetation composition, density, structure, vigor and cover would lead to proper functioning and satisfactory conditions on these streams. As the quality and quantity of vegetation and root mass improves, streambank stability would improve as well. Stable banks would result in reduced sediment and improved channel shape. The combined improvement in vegetation and streambank stability would result in less sedimentation, reduced solar heating of the water, improved streambank water infiltration and storage and generally better habitat for aquatic organisms. On the remainder of the stream miles, a change to warm water tolerant communities (suckers, dace, shiners) would occur on most streams. Removal of riparian vegetation and continued streambank trampling and erosion would result in increased stream channel width and decreased depth. As this deterioration progresses, solar heating of the water column would increase. Cold water species would be replaced by species which thrive in warmer temperatures. Biodiversity would decline as more diverse, pollution intolerant communities are replaced by less diverse, pollution tolerant communities.

The major nonpoint source impact on fish communities and biodiversity from historic mining activities would be sedimentation. Sedimentation impacts spawning areas and reduces species biodiversity. Current mining activities are regulated by numerous agencies to prevent nonpoint source pollution. Impacts from historic mining activities would continue but would be slight as most historic disturbance has stabilized over time. Impacts would be located primarily in the Jordan Creek and Williams Creek drainages.

The major point source impact on fish communities and biodiversity from mining would be acid rock drainage. Major pollutants associated with acid rock drainage are low pH and heavy metals. These pollutants could prevent the seasonal use of spawning areas and cooler water seeps during low water periods which would eliminate habitat and reduce biodiversity. Pollution intolerant communities would be replaced by pollution tolerant communities. The majority of point source impacts would be from historic mines primarily in the Jordan Creek and Williams Creek drainages. These impacts would continue at the current rate. Current mining activities have authorized mining and reclamations plans to prevent point source pollution.

OHMV impacts on fish communities and aquatic biodiversity would occur on about 731,000 acres which are classified as "open" or having few limitations on use in Alternative A. Impacts from OHMV activities would be due to a loss of ground cover and increased soil disturbance which would lead to increased upland erosion and eventually fine sediment deposition in streams. Increases in fine sediment deposition would reduce suitable aquatic species habitat which would cause a decrease in biodiversity. Impacts would primarily be located along the Owyhee Front but would probably expand to southern areas of the resource area over the next 20 years.

The primary impact on aquatic communities from prescribed burns would be increased sedimentation. Removal of vegetation would result in increased potential for precipitation runoff, and reduced infiltration. During periods of runoff, water would accumulate in ephemeral and intermittent drainages where increased sediment transport to perennial streams would occur. Sediment transport from burned areas would generally be a short-term impact. Soil stabilization would improve over time as vegetation reestablishes on the burn site. After five years, a burn site would have little impact on aquatic communities. Prescribed burns would be conducted on a maximum of 9,000 acres annually, with a total of 121,600 acres burned over 20 years. This would be an increased rate compared with recent burning levels, resulting in an increased area of impact.

Conclusion

Fish habitat would be in satisfactory condition on an estimated 35% of the total BLM stream miles as riparian areas are improved through a combination of grazing system implementation and other management practices. On the remaining stream miles the most significant impact on aquatic communities and biodiversity would be from excessive livestock grazing during the hot season. Continuation of excessive levels of hot-season grazing would result in degraded riparian condition, degraded fish habitat, reduced aquatic biodiversity, and increased populations of warm water fish species on the majority of stream miles over a 20-year period.

Meeting the Objectives

Objective: FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

This objective would be met on an estimated 35% of all stream miles in Alternative A.

Objective: FISH 2: Improve reservoir fisheries when appropriate, in consultation with State agencies and adjacent landowners.

This objective would be partially met in Alternative A. Reservoirs located on-stream would be affected by the quality of upstream water. Poor buffering and filtering function of degraded upstream riparian areas would result in higher sediment loads and increased contamination of these reservoirs.

Special Status Species

Special Status Plants

Change Agents

OHMV activities, livestock grazing, mining activities, vegetation treatments, livestock water developments, fencing, recreation use, land use authorizations, land tenure adjustments, ACEC designations and national river designations.

Impact Analysis

A projected increase in OHMV activity of 74% over the next twenty years would result in long-term adverse impacts on many of the resource area's 31 known special status plant species. Most of this increased activity is projected to occur within the Snake River geographic reference area, where topographic and geologic conditions are most favorable for OHMV users. As evidence of this, a minimum estimate of ninety miles of new trails developed in the Owyhee Front between 1987 and 1998. The combination of varied geology and arid climate in the Snake River geographic reference area has lead to colonization of this region by numerous uncommon and in some cases locally endemic plant species. A number of species reach the northern extent of their range in this area as well, and are therefore considered uncommon in Idaho. As many as 15 special status plant species are known to occur within the Snake River geographic reference area, and others could also be present, as a systematic inventory has not been completed. However, approximately 53,000 acres were surveyed between 1994 and 1996. Impacts on special status plant species are projected to continue to be adverse. The degree of impact would generally be less for species present on rockier soil types. Impacts would be both direct and indirect, including degradation of habitat, destruction of plants, and weed introductions resulting in habitat modification and increased competition for resources. Continuation of existing OHMV designations, with 420,434 acres left "Open" and 199,224 acres in a "Limited - Level 1" designation would have an overall long-term adverse impact on special status plant species.

Based on current estimates of ecological status, continuation of current livestock grazing practices, seasons-of-use and stocking levels would continue to have an adverse long-term impact on some species of special status plants. Because of the lack of historic distribution data for special status plants and the general deficiency of information on the effect of livestock grazing on these species, impact analysis must be somewhat inferential. However, classification of nearly 566,000 public land acres in an early seral stage, the prevalence of introduced plants (i.e., cheatgrass, medusahead wildrye, Russian thistle) that now compete with native species, and the direct trampling by livestock that has been observed, suggest that overall impacts on this particular component of the native flora are and would continue to be generally adverse. All species are probably affected somewhat, with less impact projected for those found in rocky soils. Such species include Simpson's hedgehog cactus and Trout Creek milkvetch. The impacts of livestock associated range projects (i.e., pipelines, vegetation treatments, fencing) are discussed separately below.

Mining activities, including mineral exploration and development, would continue to have a long-term adverse impact on special status plants. Impacts are projected to be most severe within the Snake River and northern tip of the Jordan Creek geographic reference areas, where the geology is represented by a variety of limited and localized materials (i.e., zeolite, bentonite, diatomaceous earth, oolitic limestone) that are currently being mined. Many of these materials comprise the habitat of special status plant species. Impacts are projected to increase as mineral demand increases and new mines are developed. In Alternative A, special status plant species and their habitat would continue to be destroyed and fragmented, primarily due to the difficulty in responding within a reasonable time frame to prevent potential adverse impacts caused by mining operations. The extent of impacts would be determined primarily by the amount of activity, location and mining techniques.

An estimated 72,700 acres of western juniper are identified for cutting or burning to help achieve the desired potential natural plant community. Most of the special status plants listed in Table SPSS-1 do not occur in juniper habitat. However, for those that do, the impact of these actions could be either beneficial or adverse, depending on the species involved. Species that could be affected include Osgood Mountains milkvetch, least phacelia, Simpson's hedgehog cactus, and dimeresia. Because these species rarely grow below the juniper canopy, removing the overstory by cutting or burning is projected to have a beneficial long-term impact. However, adverse short-term and potentially long-term impacts on some special status plant populations are projected during woodcut treatments, when new roads develop and debris and slash could be piled directly over the plants. Adverse impacts from juniper removal by burning are generally projected to be minimal and short-term for special status plants, since the habitat for these species is typically gravelly and sparsely vegetated where fire would not carry well. Juniper areas would not be seeded after treatment, so ground disturbance would not be a factor.

In Alternative A, 65,900 acres of sagebrush are identified for treatment to reduce shrub density and help reach the desired potential plant community. Plant species that could be impacted include Osgood Mountains milkvetch, inch-high lupine, least phacelia, and possibly Simpson's hedgehog cactus and Trout Creek milkvetch. Impacts could be beneficial or adverse, depending on the species and type of treatment. Prescribed burns with no seeding would probably have a long-term beneficial impact, as long as post-burn invasion by exotic plants does not occur. It is projected that prescribed burning followed by seeding would have a long-term adverse impact on special status plant species. About 13,400 acres of the 65,900 acres have a seeding treatment prescribed following shrub removal. Areas of known populations would be avoided but potential habitat could be altered.

Construction of new livestock reservoirs (19), pipelines (3 miles), and spring developments (45) could result in long-term indirect adverse impacts on some special status plant species, primarily by redistributing livestock into areas that were previously little used. In some cases special status plants could benefit by improved dispersion of livestock if the livestock are prevented from concentrating in rare plant habitat. Direct impacts on special status plants would depend upon exact project locations, but in general, adverse impacts are projected to be minimal, since site examinations would be conducted prior to project approval.

The impact of 79 miles of pasture fence and 137 miles of exclosure fence construction on special status plants would be adverse only if it results in livestock concentrating within special status species habitat. In most cases, direct adverse impacts could be avoided by conducting field examinations prior to project approval. However, because field exams are not typically extended into adjacent areas and because complete inventory data is lacking, it is possible that unknown special status plant populations would be adversely impacted indirectly by construction of new fences and subsequent changes in livestock use. Fencing could benefit special status plants if the fence improves livestock distribution and relieves pressure on the plant's habitat.

Construction of foot and equestrian trail systems, development and implementation of management plans for nine Special Recreation Management Areas, and upgrading or development of recreational facilities at seven recreation sites, would result in increased public use at and in the vicinity of each of these areas. While this would result in some physical deterioration of native plant communities, conducting field examinations prior to project development would generally prevent or minimize potential adverse impacts on special status plants. However, adverse long-term impacts on special status plants could develop if recreationists begin spreading into sensitive areas where concentrated use was not projected. In addition to physical deterioration of native plant communities and special status plant sites, impacts could also be in the form of increased competition with exotic plants. Long-term impacts to special status plants from increased recreational use are expected to be adverse.

Prior to approval and issuance of any right-of-way, lease or permit, site examinations for special status plants would be conducted. While adverse impacts could occur if examinations were done at an inappropriate time of year, generally Alternative A would not adversely impact special status plants. Because land use authorizations could result in substantial surface disturbance, special status plants could be indirectly impacted by fragmentation of habitat and introduction of exotic plants into disturbed areas.

Adjustments in land tenure would have either a beneficial or adverse impact on special status plant species, depending on the purpose of the acquisition or exchange. These adjustments would generally be beneficial, as Bureau policy typically would not permit exchange or sale of public lands occupied by special status species, unless lands of a higher biological value are to be acquired.

Designation and special management of four areas as ACECs or ONAs (Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, North Fork Juniper Woodland) would have a slightly beneficial impact on special status plant species. While several rare plant populations occur within the boundaries of these areas, none of the areas were originally nominated for this resource. Species that would obtain some benefit include Simpson's hedgehog cactus and rattlesnake stickseed. Other species could potentially benefit, however, because the areas have not been inventoried, these data are not available.

National river designations would have an overall long-term beneficial impact on special status plants. Designation of 94 miles of the East and South Forks of the Owyhee River as wild, scenic, or recreational rivers would result in withdrawal of these reaches from mineral entry, precluding any adverse impacts associated with mineral exploration and development. This designation would also result in vehicle access limitations and commercial recreation permitting, thereby limiting impacts associated with these actions. Because visitor use is projected to increase regardless of designation, some adverse impacts on special status plants found within the river canyons could occur. These species include rattlesnake stickseed, which grows at the base of canyon walls, American wood sage, which can grow along the river corridor or in side drainages, and Simpson's hedgehog cactus, which occurs on rocky canyon rims or uplands. The distribution of dimeresia and inch-high lupine are poorly known, but they could also be affected.

Conclusion

The overall impact of Alternative A on special status plants is projected to be adverse. Major contributing change agents include continuation of current OHMV management and a 74% increase in use over the next twenty years; continuation of current livestock grazing practices, especially seasons of use; habitat destruction from mining related activities; some vegetation treatments such as sagebrush removal; and livestock water developments, resulting in redistribution of livestock into previously unused areas of sensitivity.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

Based upon the limited availability of baseline inventory and monitoring data for many of the 31 known special status plants, it is difficult to determine how they would respond to the management actions identified in Alternative A. However, it is reasonable to assume that species growing in habitats that would continue to be heavily impacted, such as the Snake River and northern tip of the Jordan Creek geographic reference areas, would either decline or remain at current low levels. This could contribute to the listing of some plant species as Federally threatened or endangered. This objective would likely not be met for the plants found in these heavily impacted areas.

Special Status Animals

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activities, OHMV activities, recreation use, ACEC and national river designations, wildlife water developments, habitat exclosures, nesting structures and islands, land tenure adjustments, land use authorizations and species reintroductions.

Impact Analysis

Continuation of current livestock grazing practices and stocking levels on many allotements would likely have its most serious adverse impact on habitat for mountain quail, spotted frog, leopard frog and redband trout, and several species of neotropical migrants and bats all of which are dependant on riparian and/or aquatic habitats. Only 45% (293 miles) of these habitats are expected to be in satisfactory condition after twenty years which is a 30% improvement over the current situation. An estimated 359 miles are projected to remain in unsatisfactory condition. Sage grouse would also continue to be adversely impacted by grazing levels and systems that result in heavy use of meadow/riparian brood rearing habitats and insufficient grass stubble remaining within nesting habitat. Continuation of domestic sheep grazing within the resource area could lead to increasing risk of disease transmission to California bighorn sheep as bighorn populations continue to grow and expand. Bighorn sheep are being observed with increasing frequency in the northern half of the ORA many miles from well established populations within the Owyhee River canyon complex, including areas grazed by domestic sheep.

Impacts of developing 67 livestock water projects (45 springs, 19 reservoirs and 3 pipeline troughs) would depend upon exact project locations but could result in deteriorated habitat conditions and reduced prey abundance for some special status animal species in the vicinity of these developments. This, in some cases, would offset the beneficial impacts of improved livestock distribution. Development of springs and pipelines could also result in reduced water availability at the water source and degraded habitat for the species such as mountain quail, western toad, spotted frog, leopard frog, redband trout and a diversity of neotropical migrants and bats. The existing policy of fencing to protect habitat could prevent much of the riparian habitat disturbance at developed springs, if fences are well maintained, and could actually improve habitat where livestock use was occurring prior to development of the spring.

Reservoir development could result in additional habitat for riparian/wetland special status animal species although many hold water for only a few months and support little aquatic or riparian vegetation. Exclosure fencing could be used to enhance habitat at some reservoirs but would not be practical at many smaller, more ephemeral reservoirs. Special status species most likely to benefit from well designed reservoir projects include , black tern, western toad, spotted frog leopard frog and a diversity of neotropical migrants and bats.

Construction of 79 miles of fence to Lower Snake River District wildlife standards would have little adverse impact on any special status animal species unless it results in concentration of livestock within special status species habitat. Special status species clearance procedures should prevent this from occurring in most cases. Some fencing could enhance special status species habitat by improving livestock distribution and relieving pressure on habitat areas of past heavy concentration.

Treatment (burning and woodcutting) to eliminate 50,420 acres of juniper woodlands and an additional 39,540 acres of sagebrush is projected to have little overall long term adverse impact on most special status animal species. Prescribed burning could result in the loss of habitat for pygmy rabbit Brewer's sparrow, sage sparrow, and a variety of other shrub dependant neotropical migrants and bats, however, treatment to eliminate invading juniper, especially woodcuts, could also benefit many of these species over the long term by preventing the gradual loss of shrubs as juniper density and cover increases.

Mineral exploration and development could have an increasingly detrimental impact on any or all special status animal species as additional habitat is disturbed. Impacts on populations and habitats would depend upon the exact location of mining related activities and types of impacts could range from complete loss of habitat and populations within disturbed areas to more subtle impacts associated with increased activity and noise within or adjacent to special status species habitats. Impacts on any special status species within or adjacent to areas of mining activity are generally projected to be adverse. Rapid population growth within southwest Idaho has resulted in an increased demand for decorative rock for use in landscaping and building construction. This has lead to a dramatic increase in both the authorized and unauthorized removal of readily available rock, primarily from the Owyhee front. This could result in a substantial loss of habitat for the Mojave black-collared lizard, western ground snake, longnose snake, ringneck snake, several species of special status bats and possibly even burrowing owls which occasionally nest in rock talus.

A projected 74% increase in OHMV activity by the year 2018 would likely result in adverse impacts to many special status animal species. Most of this activity is projected to occur within the Owyhee Front SRMA. A large number of special status animal species are known or expected to occur in this area, many of which could be adversely affected by OHMV activity. Special status species most likely to be adversely impacted include the western toad, western ground snake, longnose snake, long-billed curlew, burrowing owl, ferruginous hawk, a diversity of neotropical migrants and kit fox.

Couch's spadefoot toads in southeastern California were induced by the noise and vibrations created by OHMVs to emergence from underground burrows during the wrong season which could result in severe stress from depletion of fat reserves and dehydration (Berry 1980). OHMV activity could result in similar adverse impacts on western toads which are found throughout the ORA, including the Owyhee Front SRMA. Other adverse impacts could include soil compaction in the vicinity of burrows, burrow collapse and toads being struck by OHMVs.

Both special status snake species have been verified as occurring within the Owyhee Front SRMA (Dillar and Johnson 1982). Projected impacts on longnose snakes and, to a lesser degree, western ground snakes include loss of habitat, burrow collapse, depletion of prey numbers and possible displacement of these and other species along and adjacent to heavily used trails and sand washes. A two year study of the impacts of OHMV activity on special status snakes and other reptiles within the SRMA has revealed that intensive OHMV activity in the vicinity of trailheads may be precluding the use of sand washes by western ground snakes (Munger pers. com. 1998). Sand washes were observed to be a preferred habitat for this species in nearby areas with little or no OHMV activity. Studies in Southern California have revealed that OHMV use results in significant decreases in prey species including lizards, rodents and arthropods (Luckenbach and Bury 1983, Bury et al. 1977, Busack and Bury 1974).

Long-billed curlew nesting habitat is concentrated primarily north of highway 78 within the large burn and seeding west of Sinker Creek. OHMV impacts on long-billed curlews could include nest destruction, flushing of adults and or young birds resulting in nest abandonment and increased losses to predation and direct losses from collisions with OHMVs. It has been observed that modification of vegetation structure and the periodic presence of drivers and their vehicles caused habitat to become unsuitable for use by nesting curlews in western Idaho (Jenni, et al. 1982).

Several burrowing owl nest sites have been documented within the Rabbit Creek trailhead area and the southeast periphery of the Hemingway Butte Trailhead area although no owls or evidence of occupied burrows could be found at any of these sites in recent years. Potential impacts on burrowing owls could include collapse of nesting burrows, habitat modification, reduced prey numbers, repeated flushing of adult birds possibly leading to nest abandonment, and or increased exposure of eggs or young birds to predation and, loss of birds from collisions with OHMVs. Unlike most other owls, burrowing owls are active during daylight hours making them more susceptible to human disturbance.

Several ferruginous hawk nests are located east of Fossil Creek within the SRBOPNCA and Fossil Creek OHV Management unit north of Highway 78. Adverse impacts from OHMV activity could include reduction in prey numbers, interference with foraging activities, loss of young and adult birds to shooting, nest abandonment caused by frequent disturbance and nest destruction. A survey of specialists involved in raptor research and management by Suter (1981) revealed that OHMV activity can and often does result in significant disturbance of nesting ferruginous hawks including flushing from nests, abandoning hunting activity and nest abandonment.

Impacts on kit fox could include significant loss of prey base, collapse of dens and noise disturbance. In the Algones Dunes of southeastern California it was found that kit fox tracks were twice as common in control plots as in OHMV use areas (Luckenbach and Bury 1983).

Impacts on pygmy rabbits would likely be similar to those projected for kit fox including vegetation disturbance and loss, burrow collapse and noise disturbance. However, because of the pygmy rabbit's strong association with dense shrub habitats they are probably less susceptible to impacts from OHMV activity than species occupying more open habitats.

Implementation of the Back Country Byways program, development and implementation of management plans for nine Special Recreation Management Areas, upgrading or development of recreational facilities at seven recreation sites and construction of foot and equestrian trail systems would likely result in increased public use at and in the general vicinity of each of these sites. This would, in some cases, result in increased physical habitat deterioration and disturbance and displacement of special status animal species within the areas of increased use, although, by concentrating use in these areas, unregulated use elsewhere could decline. Several studies have demonstrated the displacement of desert bighorn attributed to increases in human use such as hiking, backpacking and other types of recreational activity (Light 1971, Graham, 1971 and Dunaway, 1970). Others have demonstrated adverse impacts of human activities to ferruginous hawks and other raptors (Suter and Jones 1981). Special restrictions on vehicle access and commercial recreation permitting within SRMAs would limit adverse impacts associated with these activities (see below). Overall cumulative short-term and long-term impacts of these actions is projected to be slightly adverse because of the projected additional visitor use generated by each of these. Impacts would continue to increase each year as visitor use increases.

An increased number of organized equestrian events and commercial guiding and outfitting services could also result in increased impacts on some or all special status animal species depending upon location, timing and restrictions imposed. As with OHMV and other recreational activities, equestrian events would result in concentrated use and associated habitat damage and species disturbance. Guiding and outfitting activities, while resulting in little physical habitat damage, could result in localized disturbance and displacement of some special status species similar to those projected above. They could also contribute to additional recreational use caused by clients returning to the area on their own. Overall short-term and long-term impacts are projected to be slightly adverse and impacts would likely increase over the next 20 years.

Designation of 94 miles of the South and East Forks of the Owyhee River as a wild, scenic or recreational river would result in withdrawal of these reaches from mineral entry. This would preclude any impacts on special status animal species associated with authorized mineral-related activities in these reaches. This designation would also result in strict limitations on vehicle access and travel and commercial recreation permitting, thereby limiting impacts typically associated with these actions. Special status species that could benefit include the bald eagle, peregrine falcon, mountain quail, white pelican, several special status species of neotropical migrants and bats, California bighorn sheep, spotted frog, ringneck snake, long-nosed snake and redband trout. Both short-term and long-term impacts are projected to be beneficial.

The retention of 152,458 acres of public land as ACECs and ONAs would generally benefit the majority of special status species by restricting or prohibiting a wide range surface disturbing activities in various combinations. Although some restrictions could limit management options that could benefit some species (i.e., some vegetation treatments, exclosure fencing, etc.), the overall impact is expected to be positive.

Construction of wildlife water developments (primarily guzzlers) would likely result in very limited benefits to most special status animal species since most are not limited by the availability of drinking water.

Habitat exclosures which would continue to be constructed primarily to protect and enhance relatively small areas of riparian/wetland habitats could benefit any or all of the special status animal species associated with these habitats but would improve only a small percentage of all riparian/wetland habitat within the resource area. Construction of riparian pasture fences would result in similar benefits.

Development of nesting islands could conceivably benefit white pelican or black terns although neither species is known to nest within the resource area. Cumulative short-term and long-term impacts of these actions would be beneficial.

Land tenure adjustments could result in either beneficial or adverse impact on special status animal species depending upon the purpose of the exchange or acquisition. Many adjustments would result in acquisition of high quality habitat (including special status species habitat) and consolidating public ownership within ACECs, WSAs, national river corridors, etc. These acquired lands would normally be managed with special restrictions beneficial to special status species. Land tenure adjustments for other purposes would include special stipulations to avoid or mitigate adverse impacts on special status species. The overall short-term and long-term impacts of land tenure adjustments are projected to be beneficial.

Land use authorizations (rights-of-ways, leases and permits) would continue to have a net adverse impact on special status animal species as habitat is dedicated to other uses. Most land use authorizations result in substantial surface disturbance and subsequent long-term alteration or destruction of habitat for resident wildlife species. Although special status species are given special consideration, a continuing lack of current inventory data severely limits our ability to accurately assess impacts on these and other wildlife species. Even though most actions affect a relatively small area the cumulative impact over 20 years could be significant. Short-term and most long-term impacts are projected to be adverse.

Facilitating the reintroduction of peregrine falcons into suitable, unoccupied habitat within the resource area would have a beneficial impact on this species by establishing additional breeding territories which could contribute to eventual downlisting to threatened status or delisting entirely.

Facilitating the reintroduction and natural establishment of California bighorn sheep into suitable, unoccupied habitat would have a beneficial impact on this species. As more and more historic habitat is reoccupied the future of this subspecies would become more secure.

Conclusion

The overall impact of Alternative A on special status animal species is projected to be adverse. Major contributing adverse actions include the continuation of current livestock grazing practices, especially within riparian/wetland habitats and sage grouse nesting habitat; some prescribed burning treatments; continuing minerals related activities including a rapidly increasing demand for decorative rock; continuation of current OHMV management strategies and increasing levels of OHMV and most other recreational activities; and increasing number of land use authorizations. Beneficial actions would include some reservoir developments, some vegetation treatments, national river designations, island development, riparian/wetland exclosures and pastures, most land tenure adjustments and species reintroductions.

Meeting The Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

Based upon the current lack of baseline inventory and monitoring data for most special status animal species, it is difficult to determine how current management is affecting most of these species or to accurately project which ones would respond to the allocations and management actions prescribed in Alternative A. It is reasonable, however, to assume that those special status species populations dependant upon habitats that would continue to be heavily impacted, including most riparian/wetland habitats and those within the Owyhee Front OHV Management Area, would either decline or remain at current levels. This could contribute to eventual listing as federally threatened or endangered or preclude their recovery. This objective would likely not be met for most animal species within these heavily impacted habitats.

Wild Horse Management

Change Agents

OHMV activities, recreation use, mining activities, fencing, livestock water developments and livestock grazing.

Impact Analysis

Increased public use in HMAs has long-term effects on wild horses by reducing their living space and displacing them from historical water sources and use areas. It is projected that some wild horses would be forced outside designated HMAs. Stress would increase when the wild horses felt threatened by human contact. There is a projected increase in general recreation use within the resource area with the majority of projected OHMV use occurring along the Owyhee Front. Retention of the Owyhee Front SRMA would concentrate motorized recreational use on 86,953 acres of the Hardtrigger and Black Mountain HMAs. Two established trailheads would continue to encourage use of existing OHMV opportunities. Much of the increased OHMV activity projected to occur over the next 20 years would occur at these two trailhead areas which has been the historic trend. Concentrated motorized recreational use has developed extensive trail systems particularly in the Black Mountain HMA and has increased motorized use on historic horse trails throughout all HMAs. An area of 15,657 acres is no longer used by wild horses because of the high frequency of contact with people and motorized vehicles, particularly during open winters and spring periods. Lack of funding and personnel to adequately patrol and enforce existing OHMV regulations would also contribute to accelerated habitat degradation and wild horse disturbance because of an inability to control unauthorized OHMV use. Impacts would continue to be highest within the Owyhee Front SRMA. Substantial long-term impacts are projected within the Black Mountain and Hardtrigger HMAs. Those impacts would include habitat deterioration as well as animal disturbance, displacement and added stress. A projected increase in recreation user days could result in cumulative impacts on wild horses with the current ORV Management Plan. A continued "Limited - Level 1" designation would result in some increased habitat degradation and disturbance. Degraded habitat and areas of disturbances could allow for the establishment of noxious weeds which could adversely affect the wild horses potentially resulting in birth defects, abortions and death.

The increasing number of organized equestrian events and commercial guiding and outfitting services would also result in increasing impacts on wild horses and their habitat. As with OHMV activities, equestrian events would result in concentrated use and associated habitat damage and wild horse disturbance.

Guiding and outfitting activities, while resulting in little physical habitat damage could result in localized disturbance and displacement of wild horses. They would also contribute to additional recreational use caused from clients returning to the area on their own. Short and long-term impacts are projected to be adverse and impacts would likely increase over the next 20 years.

Exploration and development of locatable mineral and fluid mineral resources in HMAs could have an increasing detrimental impact on wild horses as habitat is disturbed over the next 20 years within the Black Mountain and Hardtrigger HMAs. The extent of habitat impacts would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations, increased public access associated with exploration, assessment and mining roads and ways and indirect disturbance to wild horses within the vicinity of mines and exploration operations. See Map LOCM-2 for locatable mineral potential. The HMAs would remain open for exploration and development of minerals.

Fences and spring developments would have substantial long-term impacts if placed in areas of traditional wild horse movement or use. Fences are not beneficial to wild horses because their ability to access forage and water sources along with their ability to move away from threats would be limited or precluded. Gates along fence lines, if not opened in a timely manner after authorized domestic livestock grazing periods, would reduce winter range access and free-roaming movements.

Water developments could increase forage competition with livestock. Development of livestock water projects is projected to result in deterioration of habitat conditions for wild horses at and near the developments resulting in degraded habitat because of concentrated livestock use. Development of springs and pipelines could also result in reduced water availability at spring sources or streams resulting in reduced water sources for wild horses.

Grazing systems could modify wild horse distribution and free-roaming patterns. Grazing systems and scheduled closing of gates to control domestic livestock movement confines horses to particular allotments or pastures over the course of the grazing season. The movement of livestock by the permittees has at times resulted in displacement of wild horses. The effects could be long-term. Short-term impacts of this domestic livestock grazing would occur during years of low forage production and high annual utilization, adversely impacting the general health and vitality of the wild horse herds. When domestic livestock use is balanced with forage production the wild horses would be assured of adequate forage. Continuation of current domestic livestock grazing practices and stocking levels could result in increased forage competition. This could result in unacceptable levels of utilization on key forage species and an overall decline in habitat conditions. Drought conditions would compound this situation. Drought conditions, in combination with current domestic livestock grazing practices, are resulting in an observed decline in production and vigor of vegetation, especially at lower elevations throughout the HMAs.

Conclusion

Overall, it is projected that the wild horses would be adversely affected through reduced water availability and free-roaming opportunities and increased stress from increased public interaction in Alternative A.

Meeting the Objectives

Objective WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

In Alternative A, the objective for wild horses would not be fully met. Free-roaming behavior and general animal health would be adversely impacted over the long-term.

Projected impacts on specific wild horse needs are shown on the following page.

Impacts on General Health and Free Roaming Opportunities

Components	Baseline	Short-Term	Long-Term
Forage Allocation	2,329 AUMs	2,329 AUMs	2,329 AUMs
Viability Level	118 head	118 head	118 head
Estimated Herd Size	178 head	AML	AML
General Health	0	0	-

Free Roaming Opportunity

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	-
0521	Seeding	2	0	-	-
0521	Bridge Creek	3	0	0	0
0522	Rats Nest	1	+	+	+
0556	Shares Basin	1	0	0	-
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	-
0516	Hemingway	1	-	-	-
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	-	-	-
0508	Whiskey Hill	4	N/A	N/A	N/A
0508	Alkali	5	N/A	N/A	N/A
0651	North Rabbit	1	0	-	-
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit(N)	1	-	-	-
0517	West Rabbit(S)	2	-	-	-
0517	Kane Spring	3	0	0	0
0517	Moores Creek	6	-	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

[redacted]

Water Availability for Wild Horses in HMAs on a Year Long Basis

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	-	-
0521	Seeding	2	0	0	-
0521	Bridge Creek	3	-	-	-
0522	Rats Nest	1	0	0	0
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	-
0516	Hemingway	1	-	-	-
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	0	0	0
0508	Whiskey Hill	4	N/A	N/A	N/A
0508	Alkali	5	N/A	N/A	N/A
0651	North Rabbit	1	-	-	-
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit(N)	1	-	-	-
0517	West Rabbit(S)	2	-	-	-
0517	Kane Spring	3	0	0	0
0517	Moores Creek	6	0	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

[redacted]

Public Interaction/Contact with Wild Horses Resulting in Disturbance

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	-
0521	Seeding	2	0	0	-
0521	Bridge Creek	3	0	0	0
0522	Rats Nest	1	-	-	-
0556	Shares Basin	1	0	0	-
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	-	-	-
0516	Hardtrigger	4	0	0	-
0516	Piute	5	0	0	-
0516	Hemingway	1	-	-	-
0508	Wilson	1	-	-	-
0508	Soldiers Cap	2	0	-	-
0508	Salmon Butte	3	0	0	-
0508	Whiskey Hill	4	N/A	N/A	N/A
0508	Alkali	5	N/A	N/A	N/A
0651	North Rabbit	1	-	-	-
0651	Little Kane	2	0	-	-
0651	State	4	0	0	-
0517	West Rabbit(N)	1	-	-	-
0517	West Rabbit(S)	2	-	-	-
0517	Kane Spring	3	+	-	-
0517	Moores Creek	6	+	+	-
0517	South Rabbit	5	+	+	-
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

Livestock Grazing Management

Change Agents

Livestock grazing systems, vegetation treatments, range improvements, interim management policy for wilderness study areas, national river designations, ACEC designations and mining activities.

Impact Analysis

Active preference is currently 135,116 AUMs with a average actual use (1988-1997) of 96,676 AUMs. Alternative A would result in a 5-year preference of 135,116 AUMs and a projected 20-year preference of 135,116 AUMs. See Table LVST-A for forage allocations by allotment.

Maintaining intensive grazing management systems and ensuring grazing use levels as well as constructing range developments and implementing vegetation manipulation projects should reduce the need for extensive livestock grazing reductions based solely upon upland forage carrying capacities.

Livestock grazing adjustments such as significant changes in seasons-of-use, temporary exclusion of livestock for 5 years, lighter grazing use levels, ensuring a minimum stubble height, as well as other grazing adjustments necessary to meet riparian associated objectives would be largely avoided and therefore there would not be a significant impact on the current livestock grazing program.

Vegetative treatments including prescribed burning and juniper harvesting would result in short term losses and long term gains in livestock forage production. Losses would be due to the requirement to not graze the year the site is burned and for two grazing seasons after a prescribed burn. Juniper harvest results in mechanical injury to forage plants and can make the forage plants unavailable during and after harvest due to lopping and scattering juniper branches. See Table LVST-3 for a summary of potential vegetation treatments for Alternative A.

The short term reductions and long term increases in forage production are estimated below:

	Prescribed Burn	Prescribed Burn & Seed	Juniper Harvest	Total
Acres	108,200	13,400	17,000	138,600
Short Term Loss (AUMs)	1,082	101	170	1,353
Long Term Gain (AUMs)	3,607	2,010	567	6,184

Range improvement projects (water developments and fences) needed to implement allotment grazing systems and manage livestock distribution would be designed to decrease the amount of acreage with unsatisfactory rangeland conditions and to meet other resource objectives. New fences would be designed and constructed and existing fences would be modified to meet Lower Snake River District Fence Policy standards for the wildlife species present to minimize barriers to big game movement. See Appendix RISP-1 and Figure WLDF-1. Cattleguards and other facilities would be constructed as necessary where new projects impede recreation movement. See Table LVST-3 for a summary of potential range improvement projects for Alternative A.

Interim management policy for wilderness study areas would restrict rangeland project developments. Rangeland developments may be constructed within WSAs but only if carefully designed to maintain or enhance the wilderness resources.

National river designations could result in livestock being removed from designated river channels. This could result in a change in the affected allotment's season-of-use but there are no projected reductions in active preference.

Retention of existing ACEC designations under this Alternative would not result in any change in livestock grazing preference. Within the Owyhee River Bighorn Sheep Habitat Area ACEC no livestock water developments would be constructed. No changes in existing management are prescribed for this ACEC. See Table ACEC-A for ACEC management actions.

The Stone Cabin Mine would reduce available livestock forage on three allotments, Jump Creek (0570), Flint Creek (0503) and Silver City (0569) by approximately 112 AUMs for the life of the mine which is projected to be 30 years. Reclamation would result in returning approximately 97 AUMs of forage. The loss of forage is not likely to result in reductions in grazing preference.

Conclusion

Implementation of Alternative A with the associated grazing management actions would have site specific significant impacts on current livestock management but overall livestock stocking rates are projected to remain relatively constant over the short term and long term. Forage demands would be met with the vegetation treatments, range improvements and grazing systems identified. In 20 years only slight improvement in upland conditions is projected with 37% of the rangelands in the Jordan Creek and Owyhee River geographic reference areas remaining in an early seral stage and 17% achieving a late seral stage. Upland conditions in the Snake River geographic reference area would not improve due to continued spring grazing systems. Continued livestock access to riparian ecosystems throughout the resource area during the hot summer months would not allow recovery or improvement of the riparian ecosystems and the water and riparian objectives would be met on 45% and fish objectives would be met on 35% of the stream miles. Livestock use (active preference) would remain at approximately 135,000 AUMs at the end of 20 years.

Meeting the Objectives

Objective LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

This objective would not be met in Alternative A because of unresolved resource concerns that were identified.

Locatable Minerals

Change Agents

Mineral withdrawals for wilderness areas, corridors along nationally designated rivers, certain recreational areas and ACECs; land tenure adjustments.

Impact Analysis

Withdrawal actions taken by Congress or the Secretary of the Interior in Alternative A would remove 213,069 acres (about 15%) of public lands in the resource area from location and development under the general mining laws, subject to valid existing rights of pre-existing mining claims. Validity exams would be conducted on these claims to determine whether valid existing rights exist. See Table LOCM-A for specific closures.

Managing lands with high locatable mineral potential near DeLamar primarily for mineral development could result in adverse impacts on riparian areas, water quality, wildlife, cultural, and wetland resources through the construction of roads, drill pads, mine pits, dumps, heap leach pads and related facilities. Requiring industry to use best management practices during all phases of exploration and mining would minimize damage to other resource values. Mitigating measures would stabilize areas disturbed during mining and prevent excess sediment deposition in wetlands and live streams. Proper design of facilities would reduce or eliminate acid mine drainage and wildlife kills. Cultural resources could be salvaged prior to or during construction to mitigate adverse impacts on historic resources. Performance bonds would be required of all operations conducted under a Plan of Operations as defined by 43 CFR 3809. 1-4. Inspections of all exploration operations using mechanized equipment and of all mining operations would occur on a frequent basis to insure an adequate level of mitigation and protection.

Land tenure adjustments would remove a small amount of land from location under the general mining laws. Mineral reports would be prepared on all lands involved in the sales and exchanges and mining claims on public lands would require a validity examination to determine any valid existing rights.

Conclusion

The overall impact of Alternative A on locatable mineral management would be favorable to mineral resource development, but could have moderate to severe short-term impacts on other surface resources.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Physical access to the resource is provided for by the mining laws. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Two main criteria were considered when determining if the objectives were being met: 1) Developmental restrictions - if maximum bonding, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 2) Potential likelihood of development - is the resource present in economically minable amounts.

Objective LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

This objective would be met in Alternative A.

Availability of Lands for Locatable Mineral Activity Relative to Resource Potential - Alternative A

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	25,300	1,230,489	1,255,789
Withdrawn	40	213,029	213,069
Split Estate			
Open	2,135	128,856	130,991
Withdrawn	40	2,410	2,450

Fluid Minerals

Change Agents

Mineral leasing closures and restrictions in wilderness areas, corridors along nationally designated rivers, certain recreational areas and ACECs. Riparian and wetland management, water quality protection, recreation use, wildlife habitat and land tenure adjustments.

Impact Analysis

In Alternative A 101,415 acres (7%) of public lands in the resource area would be closed to oil and gas and geothermal leasing. Of this acreage 65,131 acres are currently closed. All but 2,926 acres of split-estate lands (oil and gas) and 3,342 acres (geothermal), where the surface is privately owned, would be open to leasing. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for fluid mineral leasing. Those WSA's are not specifically listed in Table FLUM-A, however considerable areas shown in the table overlap or are contained within the WSA's.

Restriction of fluid mineral operations through seasonal or yearlong no surface occupancy would impact 478,848 acres (33 %) of public lands in the resource area. Seasonal restrictions on operations would not seriously impede any future leasing activity and should provide adequate protection to wildlife resources. Nearly 114,000 acres are prescribed for yearlong no surface occupancy restrictions, which could have an adverse impact on leasing since there would be no practical way to explore or develop some of these lands. See Table FLUM-A for specific closures and restrictions.

Modifications to any future exploration or drilling program would usually be made to protect riparian and wetland areas and water quality without seriously impeding fluid mineral development. Protection of these resources would not likely have any serious impact on fluid mineral operations in the foreseeable future.

Recreation activities would generally be incompatible with fluid mineral exploration and development. Noise, dust and heavy machinery associated with drilling operations would adversely impact recreational opportunities on the public lands. Future drilling sites may have to be fenced off from nearby established recreation areas, such as campgrounds, OHV parks or trails for safety purposes. Access routes into fluid mineral development sites may have to be restricted or relocated to not interfere with certain recreation activities. Established recreation sites may require a buffer of public lands where development activities would be restricted to reduce disturbance to recreationists.

Land tenure adjustments would cause some minor shifts in the amount of land available for fluid mineral leasing.

Conclusion

The outlook for an active fluid minerals leasing and exploration program is poor. There would always be some interest in fluid minerals in southwest Idaho, particularly in low-temperature geothermal resources, but until energy prices are much higher then present or until new technology becomes available, no leasing activity is likely to occur. Large scale no surface occupancy restrictions may have a small adverse impact on any leasing interest in the southern part of the resource area. Overall, the impact of Alternative A on fluid minerals development is favorable.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met:

1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present.

2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology.

3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

This objective would be met in Alternative A.

Availability of Lands for Fluid Mineral (Oil and Gas) Activity Relative to Resource Potential - Alternative A

Management Constraint	Low Potential	Zero Potential	Total
Public Lands			
Open	796,385	92,210	888,595
Open-Seasonal Occupancy	218,000	147,000	365,000
Open-No Surface Occupancy	103,848	10,000	113,848
Closed	101,375	40	101,415
Split Estate			
Open	65,103	65,412	130,515
Closed	2,926	0	2,926

Availability of Lands for Fluid Mineral (Geothermal) Activity Relative to Resource Potential - Alternative A

Management Constraint	High Potential	Low Potential	Total
Public Lands			
Open	82,693	805,902	888,595
Open-Seasonal Occupancy	14,100	350,900	365,000
Open-No Surface Occupancy	340	113,508	113,848
Closed	59,668	41,747	101,415
Split Estate			
Open	840	129,259	130,099
Closed	3,122	220	3,342

Mineral Materials

Change Agents

Population growth; mineral withdrawals for wilderness areas, certain wildlife areas, recreation sites, natural areas and ACECs; land tenure adjustments.

Impact Analysis

In Alternative A, 3,220 acres (7%) of public lands classified as having high potential for sand and gravel would be closed to disposal. This small area is not likely to seriously impede development of the area's mineral material resources. See Table MMAT-A for specific closures. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for mineral material disposal. Those WSA's are not specifically listed in Table MMAT-A, however considerable areas shown in the table overlap or are contained within the WSA's.

Protecting riparian areas and wetlands would require some restrictions on the development of mineral material sites, particularly along stream channels. Future material sites would likely be located along bench and terrace gravel deposits and alluvial fans away from any live water. Access roads into material sites may need to be relocated or engineered specifically to protect wetlands and riparian areas.

Land tenure adjustments would remove a small amount of public land from availability as material sources.

Conclusion

The overall impact of Alternative A on mineral materials management in the resource area is generally favorable for the development of these resources.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met:

1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present.

2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology.

3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

This objective would be met in Alternative A.

Availability of Lands for Mineral Materials Activity Relative to Resource Potential - Alternative A

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	40,080	1,213,540	1,253,620
Closed	3,220	212,018	215,238
Split Estate			
Open	1,370	131,029	132,399
Closed	20	1,022	1,042

Recreation

Change Agents

Recreation use, OHMV designations, special designations, recreation facilities, fencing, water developments, acquisition, vegetation treatments, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Changes in the Availability of Recreation Opportunity Settings:

Alternative A would continue the existing array of recreation opportunity spectrum (ROS) settings available throughout the resource area, yet would result in some shift in the amount of acreage available in each classification as shown below. ROS classifications are an expression of the type of experiences one can achieve while in an area with a combination of social, physical, and managerial settings. Settings are defined in terms of their remoteness, size, evidence of human use, social environment (amount of visitation or use), and management presence (facilities as well as personnel). See Table RECT-3 for details on each of the settings. Semi-primitive motorized settings would remain the predominate opportunity class covering about 44% of the resource area. In the northern portion of the resource area (the Snake River and Jordan Creek geographic reference areas), roaded natural, rural, and urban settings would accompany semi-primitive motorized settings. Some semi-primitive nonmotorized settings would exist in remote mountainous areas. To the south (Owyhee River geographic reference area), semi-primitive motorized settings would continue to isolate numerous pockets of semi-primitive nonmotorized settings across the open plateau areas, as well as define a concentration of primitive and semi-primitive nonmotorized settings encompassing the Owyhee Canyonlands and the North Fork Owyhee River Backcountry SRMAs. In the south, roaded natural settings with some rural acreage would only be associated with the Owyhee Uplands National Back Country Byway and several connecting roadways.

ROS Classifications Availability In Alternative A (See Map RECT-1)

ROS Class	Total Acres In 1998	Percent of Resource Area in 1998	Percent of Resource Area in 2018
Primitive	234,983	13%	10%
Semi-Primitive Nonmotorized	386,150	22%	23%
Semi-Primitive Motorized	794,010	44%	44%
Roaded Natural	177,080	10%	12%
Rural/Urban	187,269	11%	11%
Total*	1,779,492	100%	100%

* All lands: BLM, State and private.

Management actions in Alternative A are projected to cause changes in ROS class acreages primarily within primitive and semi-primitive motorized and nonmotorized settings. Changes in classification could result from 1) off-highway motorized vehicle activity allowed under various OHMV designations; 2) increased administrative access to new range improvements; 3) vegetation treatments (juniper harvesting); or 4) development of new roads or upgrading existing vehicle routes for mineral exploration and development. Continued random OHMV activity in "Open" designations could result in new semi-primitive motorized travel corridors which could penetrate what are now primitive or semi-primitive nonmotorized settings. Administrative routes to new range improvements are projected to be unconstructed jeep trails, potentially reducing the amount of primitive and semi-primitive nonmotorized settings available. Mineral development, such as that in the vicinity of Silver City, would change semi-primitive motorized settings to roaded natural settings with the construction of maintained gravel roadways. Recreational development would also contribute somewhat to increased roaded natural settings.

While wilderness study lands remain under the BLM Wilderness Interim Management Policy (IMP), no change in the availability of primitive or semi-primitive nonmotorized settings in wilderness study areas would occur within the Owyhee River geographic reference area. Should suitability recommendations as presented in the Owyhee RMP be accepted by Congress, 123,800 acres of public lands would be released from the IMP and made available for other multiple uses, including vegetation treatments. These treatments could substantially affect the naturalness of the Juniper Mountain area, converting primitive settings to mostly semi-primitive motorized settings. In the North Fork Owyhee River Backcountry SRMA/WSA, vegetation treatments could cause some reduction in naturalness, resulting in a shift toward semi-primitive nonmotorized settings. The semi-primitive nonmotorized settings of the plateau lands in the Owyhee Canyonlands region (including nonsuitable WSA lands) could allow wildfire rehabilitation projects (drill seeding) and mineral exploration and development that affect the quality of semi-primitive nonmotorized experiences by reducing naturalness, yet these actions may not cause a change in ROS class. Some acreage of primitive settings in non-WSA areas around upper Nickel Creek would also shift to semi-primitive motorized or nonmotorized settings as a result of woodland treatment projects.

Off-highway motorized vehicle (OHMV) designations prescribed in Alternative A would limit public use on 8 899,557 acres in the resource area. The restrictions would limit OHMV use in any given "Limited" area to one of nine levels based upon the availability of vehicle routes. The remaining 420,434 acres of the resource area would be "Open" to cross-country travel of motorized vehicles. See Map RECT-1A.

Alternative A prescribes continuation of existing OHMV designations (Owyhee Off-Road Vehicle Management Plan, 1987). As such, Alternative A would have no impact on existing authorized OHMV opportunities within the resource area. Unauthorized OHMV activities occurring in violation of existing OHMV designations are generating additional trails in both the Owyhee Front SRMA (Snake River GRA) as well as south into the Jordan Creek GRA within the Owyhee Mountain Range, principally around Silver City. Some OHMV use in violation of OHMV designations is also occurring in the Owyhee Canyonlands/ Juniper Mountain area.

Impacts on Recreational Opportunities in Special Recreation Designations:

Alternative A prescribes intensive management for ten (10) special recreation management area (SRMA) designations totalling 313,258 acres. Alternative A also recommends the congressional designation of 94 miles along the East Fork and South Fork Owyhee River as national wild and recreational rivers within the Owyhee Canyonlands SRMA.

Special designations managed under current recreation objectives would ensure long-term protection of recreational opportunities dependent on predominately primitive and semi-primitive motorized and nonmotorized settings and, in some areas, roaded natural settings. In Alternative A, management actions prescribed in these areas are tailored toward protecting existing ROS classifications by minimizing changes in the current physical settings (all three GRAs), and by improving public pedestrian (foot) access to allow the enjoyment of primitive settings by a larger sector of the general public. All existing developed recreation sites (roaded natural settings) in the resource area would be maintained or upgraded within SRMAs. Alternative A would also enhance roaded natural settings through the development of new recreation sites in the North Fork Backcountry and Owyhee Canyonlands SRMAs. New site work would also include construction of other small sites, as appropriate, in the extensive recreation management area.

National river designation for 94 miles of river canyons would include withdrawal of the affected lands from mineral entry, precluding any potential irretrievable loss of outstanding primitive recreational values considered to be of national significance.

Impacts on the Quality of Recreational Experiences:

Not only would management actions prescribed in Alternative A result in a change in the availability of various recreational opportunity settings in the resource area, management actions would also affect the overall quality of recreational experiences that would be obtainable.

Primitive settings require a sense of remoteness, a vastness (size), and little or no evidence of human use. Currently, recreational users seek out the canyonlands and some adjoining plateau and rock outcrop landscapes of the Owyhee River system for primitive recreation experiences. In Alternative A, these lands are prescribed for mostly Class II visual resource management (VRM) where management actions would be allowed if they would only slightly affect the naturalness or scenic quality of the landscape. Recreation management actions identified in Alternative A affecting VRM Class II areas include short portage trails around two rapids on the East Fork Owyhee River (Owyhee Canyonlands SRMA) and the foot/ equestrian trail system in the North Fork Owyhee River watershed (North Fork Canyon and North Fork

Owyhee Backcountry SRMAs). Projected increases in recreation use on the East Fork would not be enough to cause substantial adverse effects to naturalness, aesthetic qualities, or solitude opportunities in the river canyon, except at isolated areas of concentrated use, such as the rapid portages. Increased levels of recreation use are projected to produce unsightly, random, unstable trailings around the rapids. Construction of one good maintained trail would prevent this. The foot trails along the North Fork would be constructed to not adversely affect naturalness or scenic values for which primitive experiences are dependent. There are currently no maintained trails in the resource area except the short (one-eighth mile long) Jump Creek Trail. By developing foot access into the North Fork system there would be a greater diversity in the type of nonmotorized experiences available in both primitive and semi-primitive settings.

Other recreation management actions pertaining to development and maintenance of recreation facilities (campgrounds, picnic areas, trailheads, and foot/equestrian trails) in semi-primitive motorized and roaded natural settings would provide increased choice in access opportunities without substantially affecting the natural or aesthetic character of the landscape, but would contribute to increased site-specific recreation use. The affected semi-primitive and roaded natural settings would generally be managed as VRM Class II and III areas. Some modifications of the natural landscape would be permissible within these ROS and VRM classifications, particularly if they enhance recreation opportunities. Trail and campground/picnic area developments, such as the North Fork and Jump Creek Recreation Sites, would improve nonmotorized access into rugged canyon areas, giving access to many who would otherwise not have an opportunity to experience these settings. Such facilities tend to promote localized increases or concentrations of recreation use at a rate greater than for undeveloped sites, demanding a greater managerial presence.

Projected increases in visitor use would not adversely affect the quality of recreational experiences through the year 2018 by causing a sense of crowding or by contributing to deterioration of the natural landscape, except in the Owyhee Front. Rapidly increasing use of the Owyhee Front would hamper BLM's ability to reduce or prevent resource deterioration of undeveloped sites on an overall basis. Localized vandalism and unauthorized OHMV use would likely remain the principal cause of resource deterioration and facility damage at already developed sites such as Jump Creek and the off-highway vehicle trailheads. Alternative A would allow for additional developments, however, it would not provide for direction as to specific locations or purposes for sites in the Snake River GRA (Owyhee Front). In the remainder of the resource area, existing developed sites, and development of several small additional sites, would be adequate to meet recreational demand through the year 2018.

On the Owyhee Front, Alternative A would not provide direction in managing for the protection of equestrian opportunities. Equestrian use has increased dramatically in recent years. Currently equestrians are seeking the more isolated semi-primitive motorized settings of the Owyhee Front to conduct mostly day-use horseback riding activities. There is also some regular use of isolated semi-primitive nonmotorized settings and a remnant primitive area (upper East Fork Sinker Creek area). As more OHMV use occurs, it would become increasingly more difficult for a quality equestrian experience on the Owyhee Front. The situation is becoming more acute as unauthorized use of livestock and game trails is leading to development of new OHMV trails in areas now used by equestrians. This situation is notable in the Hardtrigger area where horseback riding activities appear to be most concentrated.

OHMV designations are intended, in part, to protect the existing recreational settings by preserving the natural and aesthetic character of select landscapes in the face of ever increasing numbers of recreation users. The "Limited" designations prescribed in Alternative A would generally help preserve the quality of existing OHMV experiences while preventing degradation of nonmotorized experiences. While the actual number of users by the year 2018 would not be detrimental to recreational resources as a whole, unrestricted OHMV use on 420,434 acres of "Open" lands could result in the continued generation of new motorcycle/ATV and jeep trails that would change the landscape that many different recreational users come to enjoy.

With the continuation of current management in Alternative A it is projected that the size and extent of the existing OHMV trail system in the more intensively managed Owyhee Front SRMA would remain about the same. Increased use of the existing trail system on the Owyhee Front is causing increased trail maintenance and contributing to unauthorized development of some new trails, widening of existing trails, formation of moguls, conversion of motorcycle/ATV trails to jeep trails, and the need to close and reroute some trail segments. The recreation user is responding to these conditions by encouraging the BLM to authorize new trails along the Owyhee Front, extending their OHMV experiences southward into the Owyhee Mountain Range (particularly in the Silver City area), or by being displaced to other areas of southwest Idaho. The southward push is resulting in increased use of the existing network of dirt roads and jeep trails in the Jordan Creek GRA and the formation of unauthorized OHMV trails along what were once historic livestock or game trails. This expansion of OHMV activity will likely continue.

Alternative A would provide additional range improvement projects at a level similar to that experienced between 1981 and 1991. New projects are projected to include increased emphasis on pasture fences and riparian exclosures. Each of these projects affect the free-roaming experience historically provided on public lands. Cattleguards would help mitigate the loss of quality in the motorized free-roaming experience, yet recreationalists involved in both motorized and nonmotorized activities would find their access along stream channels and to spring sites inhibited by more riparian exclosure fences. Overall, the free-roaming recreational experience within the Owyhee Resource Area would continue to be adversely affected to a slight or moderate degree.

A number of fence gates define legal divisions between Federal and private properties where the public has no right of passage. Many of these gates can be locked, particularly during the hunting season. Land actions (acquisitions of easements or free title, and exchanges) in Alternative A have the potential for providing some public access where locked gates or signing prevents access to large blocks of public land.

Impact analysis for riparian resources in Alternative A indicates that the riparian objective would be met on only 45% of the riparian miles. Grazing systems and associated riparian exclosures to manage livestock grazing would not be sufficiently effective in producing a notable improvement in riparian conditions. Without improved riparian habitat conditions, terrestrial wildlife populations are more susceptible to the natural adverse effects of cyclic climatic conditions which influence population stability. Similarly, static riparian conditions would not be conducive to improved aquatic wildlife (fishery) populations. However, the vegetative treatments identified for upland areas could help retain or somewhat increase huntable populations of mule deer, antelope and sage grouse by increasing forage availability and improving forage/cover ratios. In summary, Alternative A could result in some increase in the overall hunting opportunities now available while fishing opportunities would remain about the same.

Alternative A identifies treatment of about 138,600 acres with prescribed burning and woodcuts (or alternative treatment methods on about 12,000 acres) to control the spread of seral juniper or to reduce sagebrush competition with grass species on sagebrush-bunchgrass ecological sites. Such actions are intended, in part, to maintain or restore forage and forage/cover ratio requirements for wildlife, contributing to more stable wildlife populations and, consequently, higher quality wildlife-related recreation opportunities. However, the woodland treatments degrade the scenic quality of the landscape and, in the case of woodcutting, the landscape's natural character. Adverse visual impacts could last as long as 50 years depending upon the age class of serial juniper stands being treated (see visual impact analysis). During this period, the quality of recreational experiences would be diminished. Treatments would be concentrated in the Jordan Creek geographic reference area and northern portion of the Owyhee River geographic reference arez within mostly VRM Class III and IV areas. Numerous treatments in this region through the year 2018 would have a cumulative effect on the quality of recreational experiences of all types within predominately primitive and semi-primitive motorized and nonmotorized settings, and, to some extent, roaded natural settings. Woodland treatments could reduce the amount of acreage in primitive settings within the area from 13% to 10% if nonsuitable WSA lands are eventually released from the Wilderness IMP. In semi-primitive motorized settings, reduced natural and scenic character may be tolerated more readily by hunters (a primary user group) in light of stable or improved game populations. Those using roaded natural settings along such roads as the Owyhee Uplands National Back Country Byway would have their recreation experiences most affected because the sight-seeing and driving for pleasure activities sought on these roads are highly scenic dependent. In time (25 to 50 years), visual effects of treatments would be largely gone and the quality of recreation experiences restored or enhanced. Reburns of treated areas are projected to occur on a regular basis. However, reburns would have minimal visual impact after several growing season because larger trees would generally not be involved, thereby having little long-term effect on recreational experiences. For prescribed burn projects affecting mostly semi-primitive motorized and nonmotorized settings found on sagebrush-grassland ecological sites outside of the woodland region, the burn and possible subsequent drill seeding would not affect visual quality over the long term, but would somewhat reduce naturalness to the detriment of semi-primitive nonmotorized experiences.

Concerns for vegetation and watershed protection in Alternative A are most likely to have some long-term effect on the availability of OHMV trails in the roaded natural and semi-primitive motorized settings of the Owyhee Front SRMA. It is projected that a number of miles of trail would eventually have to be closed temporarily or permanently to stabilize or reverse erosion caused by off-highway vehicles. Closures of entire areas could also occur. To mitigate the adverse impacts on OHMV recreation from trail closures, new trails could be considered in less sensitive areas.

Alternative A would allow for locatable and fluid mineral exploration and development activities. Most locatable mineral activities affecting recreation use are projected to be concentrated in the Silver City area and, to a lesser amount, the Owyhee Front. Mineral development in the DeLamar and Florida Mountain area would result in a change in ROS class from semi-primitive motorized to roaded natural, as well as reduce the quality of surrounding semi-primitive settings. The nature of open-pit mining, however, would preclude the public from using much of the roaded natural setting because of safety reasons during the time of mine operation. The quality of semi-primitive recreation experiences on lands immediately surrounding the mine operation would be reduced by visual and audio intrusions. For more detail on the DeLamar and Florida Mountain mineral activities, refer to the Stone Cabin Mine EIS. Additional mine sites are projected to be developed in the Silver City area, resulting in a cumulative effect on recreational experiences ranging from exclusion, restricted access, and degradation of natural and scenic quality. Other mineral activities, such as exploration for oil and gas, could also cause new roaded natural corridors and cause localized reductions in the quality of recreational experiences in the semi-primitive motorized settings of the Owyhee Front and primitive to semi-primitive nonmotorized settings in the Owyhee Canyonlands region.

To protect the high quality of primitive recreational experiences in suitable wild/recreational river canyons from the effects of potential mineral exploration and development, Alternative A recommends withdrawal of the affected lands from mineral entry. Withdrawals would affect canyon systems of the East Fork and South Fork Owyhee Rivers. The remaining eligible river segments would not receive withdrawal protection.

Should Congress not accept the BLM's national river or wilderness recommendations, the absence of such designations for lands adjoining the Paiute (El Paso) Gas Pipeline crossing of the East Fork Owyhee River could result in development of a high voltage powerline utility corridor in the Owyhee Canyonlands region. Such development would result in new roaded corridors and would eliminate or severely diminish primitive and semi-primitive nonmotorized recreation opportunities on surrounding canyon and plateau lands of the WSA complex. Development would also reduce the quality of semi-primitive motorized recreation opportunities on surrounding plateau lands (see the Owyhee Canyonlands Wilderness EIS for details).

Conclusion

Alternative A would provide for intensive management of recreation resources and recreation use on 313,258 acres in ten (10) special recreation management areas (SRMAs). Included in this acreage would be the recommendation for congressional designation of 94 miles of river canyon along the East Fork and South Fork Owyhee River as national wild and recreational rivers to afford long-term protection to the rivers' nationally significance primitive recreation values. Alternative A would limit the use of off-highway motorized vehicles (OHMVs) on 899,557 acres to protect existing OHMV experiences and other nonmotorized recreation experiences. On the 420,434 acres of "Open" designation, indiscriminate use of OHMVs is projected to result in a steady decline in the quality of other semi-primitive recreational experiences.

Much of the resource area (44%) would remain in semi-primitive settings. In VRM Class III/IV areas, woodland treatment projects would moderately to severely reduce the quality of semi-primitive recreation experiences until affected lands have recovered (25 to 50 years). Over the long term, vegetation treatment projects could improve the quality of recreational experiences, especially for hunters because of somewhat increased or stabilized game populations. Continued development of fences, however, is projected to contribute to a continued slight or moderate long-term decline in the quality of the free-roaming recreational experience found in semi-primitive settings.

Within VRM Class III and IV areas, and eventually in VRM Class II-IMP areas, recreation opportunities would shift from primitive to semi-primitive motorized or nonmotorized settings because of woodland treatment projects. Burn and seed projects on sagebrush plateau lands could reduce the quality of semi-primitive nonmotorized experiences. There is also the potential for reductions in the quality of primitive and semi-primitive recreation experiences from energy exploration and development should wilderness or wild river designation not occur along the East Fork and South Fork Owyhee River.

VRM Class II areas prescribed in Alternative A would generally protect existing recreation settings and experiences except in areas of open-pit mining (Silver City area). Mineral activities would severely reduce the quality of semi-primitive recreation experiences and result in the shift of some semi-primitive motorized recreation settings to roaded natural settings. Prescribed recreation facilities and range improvements (including limited vegetation treatments) would not seriously affect primitive and semi-primitive nonmotorized recreation settings or experiences in VRM Class II areas.

Meeting the Objectives

Objective RECT 1: Provide for off-highway motorized vehicle (OHMV) use on public lands while protecting sensitive resource values.

Off-highway motorized vehicle designations in Alternative A would not fully meet the OHMV objective because they provide for OHMV opportunities throughout the resource area yet the designations would not adequately protect sensitive resource values, particularly in the Snake River GRA.

Objective RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

The special recreation management areas identified in Alternative A would not fully contain those lands needing special attention because of intensive recreation use and conflicts with sensitive resource values, particularly in the Snake River geographic reference area. Alternative A would meet the objective in terms of protecting nationally significant recreation and scenic values associated with primitive settings in the Owyhee River GRA.

[redacted]

Objective RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Alternative A would provide permanent protection on 42% of the eligible river miles in the resource area under a suitable recommendation for only the main canyon systems of the East and South Forks of the Owyhee River. Other river segments considered to have highly significant national river values would not be recommended as suitable for designation.

Objective RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Alternative A would provide for developed recreational experiences at existing sites throughout the resource area but would establish only minimal direction in the development of new recreation sites, except those associated with roaded natural and primitive settings in the Owyhee River GRA. Alternative A would not adequately address the need for recreation site development in the Snake River GRA where recreation use is projected to be most significant during the next 20 years.

Objective RECT 5: Develop a trail system that provides a range of motorized and nonmotorized recreation opportunities for the public's enjoyment of primitive, semi-primitive nonmotorized, semi-primitive motorized and roaded natural settings.

Actions identified in Alternative A would not meet this objective because of inadequate recreation facility (trail) development in the Snake River GRA to deal with increasing recreation demand for more diverse recreation opportunities.

Objective RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only). Alternative A would fully meet this objective.

Objective RECT 7: Retain at least 10% of the Owyhee Resource Area in a primitive recreational opportunity (ROS) setting.

Alternative A would meet this objective by providing long-term protection to existing primitive settings found on 10% of the resource area.

Wilderness

Change Agents

Vegetation treatments, fencing, water developments, OHMV activities, recreation facilities, utility corridors and locatable and fluid mineral activities.

Impact Analysis

The 294,740 acres of wilderness study areas (WSAs) in the resource area (see Map WNES-1) are required to be managed under BLM's Wilderness Management Policy (IMP) to protect their wilderness characteristics: naturalness, and outstanding opportunities for primitive recreation or solitude. The IMP prohibits taking any action considered to adversely affect a WSA's suitability for congressional wilderness designation. An action is considered an impairment of wilderness suitability if: 1) it individually, or when considered collectively with other existing human imprints, makes the imprints of man substantially noticeable to a casual observer in the WSA as a whole, and/or 2) the action reduces the value of the WSA for wilderness as compared to other land uses. No actions have been identified in Alternative A which would impair wilderness values on WSA lands.

In Alternative A, as with all other alternatives, the recommendation for congressional designation of 195,980 acres of public lands as wilderness is carried forward. Within this acreage are 3,890 acres of non-WSA, Section 202 FLPMA study lands which have also been recommended for wilderness designation. Unlike WSA lands, Section 202 study lands are to be protected only from unnecessary and undue degradation under authority of Section 302 of FLPMA. No actions which would cause unnecessary or undue degradation have been identified for Section 202 lands in Alternative A.

Should Congress designate wilderness, those areas would be managed under the BLM Wilderness Management Policy (September 24, 1981) to preserve and enhance wilderness values. Management for specific wilderness areas would be determined through development of wilderness management activity plans which are generally required to be submitted to Congress within two years after wilderness legislation. The Owyhee RMP does not give specific direction for management of potential wilderness areas and the environmental consequences of wilderness designation are not presented in this document. The environmental impacts from wilderness designation were presented in the Owyhee Wilderness Plan Amendment EIS and the Owyhee Canyonlands Wilderness EIS. The impact analysis in these documents reflects possible management scenarios for wilderness areas prescribed by the BLM Wilderness Management Policy. Some site-specific actions relating to recreation management which were identified in the two wilderness EISs regardless of the outcome of congressional action are being carried forward in the Owyhee RMP (see the recreation management actions in Chapter 2).

The Owyhee RMP does provide direction for management of public lands affected by WSAs should Congress not designate wilderness areas. This direction is given through the identification of various visual resource management (VRM) classifications and off-highway motorized vehicle (OHMV) designations. Alternative A provides for interim classification of 124,842 acres as VRM Class II-IMP and 110,878 acres designated as OHMV Limited - Level 4-IMP(0). These classifications and designations identify the level of development and uses allowed under the BLM Wilderness IMP for WSA lands which have been recommended as nonsuitable for wilderness designation, and what less restrictive management would be allowed if the lands are released from the IMP by Congress. The remaining IMP lands would be protected over the long term with more restrict VRM classifications and OHMV designations.

VRM Class II areas are intended to retain the natural character of the landscape with the imprints of man substantially unnoticeable to the casual observer: the general principal guiding the IMP. Upon congressional release from the IMP, affected VRM Class II-IMP lands would become VRM Class IV areas. In this visual classification, a broad range of rangeland projects (livestock, wildlife and watershed) could occur. Rangeland management actions would occur in the nonsuitable Juniper Mountain WSAs in Alternative A. Alternative A identifies clear-cutting seral juniper woodlands in order to restore grass, forb and shrub species to sagebrush-grassland ecological sites. New fences and spring developments are also identified. Stream channel stabilization projects, which involve lining streambanks with juniper trees, could also occur. New roads and jeep trails would be generated as a result of woodland cutting projects. The OHMV Limited - Level 4-IMP(0) designation would allow for the continued use of some of these new vehicle routes as well as cross-country travel. Overall, at least 12,900 acres of public land in the Juniper Mountain WSA complex would have substantial losses of wilderness characteristics. Naturalness and outstanding opportunities for solitude and primitive recreation would all be affected. Details concerning the loss of wilderness characteristics in the Juniper Mountain WSA complex are discussed in the No Wilderness Alternative presented in the Owyhee Wilderness Plan Amendment EIS.

Impacts to wilderness characteristics similar to those of the Juniper Mountain WSA complex, but less extensive and severe, are projected to occur in the juniper woodland areas of the North Fork Owyhee River WSA. The North Fork WSA would retain its special recreation management area (SRMA) designation on its nonsuitable areas as well as its suitable areas should Congress not accept the BLM's wilderness recommendations. The SRMA designation would continue to be managed to VRM Class II standards and an OHMV Limited - Level 4 designation. Consequently, woodland treatment projects (with accompanying access roads and trails), fencelines and watershed stabilization projects are projected to be the minimal necessary to meet management objectives for these resources without notably altering the natural character of the landscape. Yet, the level of potential development is projected to be greater than would occur with wilderness designation where a VRM Class I standard would be imposed. In VRM Class I, virtually no rangeland development could occur. With VRM Class II, OHMV activity would be restricted to existing roads and jeep trails. However, Alternative A would allow development of new recreational access roads to trailheads within nonsuitable areas found on the southern periphery of the North Fork WSA. The trailheads would service a recreational foot/equestrian trail system that would affect both suitable and nonsuitable lands. The IMP permits trail development to enhance opportunities to experience primitive recreation activities within WSAs. Such a trail system is possible with wilderness designation, but the trail would be built to a lower standard (narrower, steeper grades and fewer bridged stream crossings) than would occur with the SRMA designation in order to minimize its visual presence on the landscape. Overall, at least 10,350 acres of the North Fork WSA would see slight to moderate losses of wilderness characteristic in Alternative A.

VRM Class II-IMP and OHMV Limited - Level 4-IMP(0) actions also pertain to peripheral plateau lands of the Owyhee Canyonlands WSA complex. For these affected WSA lands the change in VRM and OHMV management following IMP release is generally not projected to result in activities that would substantially compromise existing wilderness characteristics. If reductions or losses of wilderness characteristics occur they would likely result from the mechanical drill seeding of some lands affected by wildfires. The mechanical seeding process leaves behind a cultivated appearance to the landscape that could exist for many years. Details concerning impacts on wilderness characteristics in the Owyhee Canyonlands WSA complex are discussed in the various alternatives presented in the Owyhee Canyonlands Wilderness EIS. From development scenarios provided by the Owyhee Canyonlands Wilderness EIS, it has been estimated that as much as 32,190 acres of the Owyhee Canyonlands WSA complex in Idaho could eventually have diminished wilderness characteristics (naturalness) as a result of seeding projects over the long term.

Owyhee River ACEC/SRMA lands contained in the Owyhee Canyonlands WSA complex would be managed for VRM Class II and OHMV Limited - Level 4 in the absence of wilderness designation. On these lands there would be no BLM initiated actions contained in Alternative A which would adversely affect wilderness characteristics (see Owyhee Canyonlands Wilderness EIS). Launch site developments, road maintenance to existing standards and portage trail developments (East Fork Owyhee River) would help stabilize fragile sites that are currently concentrating recreational use. The developments would not be of a nature that would attract additional recreational use, particularly in light of the fact that access roads would be retained at their current level of construction, a condition which tends to discourages use by the general public (driving for pleasure and sight-seeing).

There are two additional types of actions which could occur in Alternative A in the absence of wilderness designation that need to be noted: utility corridor development and locatable and fluid mineral activities. There is a high probability for establishment and development of an enlarged and less restrictive utility corridor along the Paiute (El Paso) Gas Pipeline which runs north-south through the Owyhee Canyonlands WSA complex just west of the Duck Valley Indian Reservation. The existing corridor is one-mile wide and use is currently restricted to underground developments only in the vicinity of the WSAs. The corridor is one of several routes which has been identified for future planning of high voltage powerlines to service interstate electrical needs of the western United States. Development of such a corridor, in the absence of wilderness or wild river designation for the East Fork Owyhee River, would severely reduce or eliminate wilderness characteristics on 10,330 to 10,760 acres of WSA plateau and canyonlands adjoining the Paiute (El Paso) Gas Pipeline (WSA ID-16-49D and WSA ID-16-52). Refer to the various alternatives presented in the Owyhee Canyonlands Wilderness EIS for details on the Paiute (El Paso) utility corridor.

There is some potential for locatable and fluid mineral exploration and development in the Owyhee Canyonlands WSA complex. Though currently identified as having low mineral development potential, there is a low to moderate possibility of some level of exploration activity associated with geological structures within or immediately adjacent to the river canyons. Despite the "unnecessary and undue" standards required by the 3809 regulations, any customary activity of an exploratory nature into the canyon walls of the Owyhee River system could cause irretrievable and irreversible impacts on wilderness characteristics (naturalness and outstanding opportunities for primitive recreation) on at least a localized basis in a location at the heart of the wilderness complex, potentially visible to river floaters who make use of the upper Owyhee River system in the three-State area of Oregon, Idaho and Nevada. The potential for extreme degradation of naturalness in steep topographic areas from "exploration" activities has been well demonstrated by the exploration of Florida Mountain near Silver City (see visual impact analysis). For details concerning the potential impacts from mineral activity along the Owyhee River refer to the various alternatives presented in the Owyhee Canyonlands Wilderness EIS (mineral scenarios were only developed for Oregon WSA lands in this EIS because more information was available on the favorability of mineral development). As with the utility corridor development, the potential for mineral development in the absence of wilderness designation is subject, in part, to congressional action on wild river suitability recommendations for the South Fork and East Fork Owyhee Rivers. There is also the potential for exploration and development of oil and gas reserves on the peripheral plateau lands of the Owyhee Canyonlands WSA complex. These are the same lands which could be affected by wildfire rehabilitation seeding projects. According to scenarios developed for the Owyhee Canyonlands Wilderness EIS, as much as 5,100 acres of Idaho BLM lands could be at least temporarily affected by energy exploration.

Conclusion

Implementation of Alternative A would ensure the protection of WSA lands while they remain under the BLM Wilderness IMP. In the event of no wilderness designation, there is a high probability that as much as 55,440 acres of the WSA lands in the resource area would experience a moderate to substantial lost of wilderness characteristics due primarily to vegetation treatment projects. The loss could be further increased by at least 10,330 acres in the absence of alternative national wild river designations within the Owyhee Canyonlands WSA complex due to utility corridor development.

Meeting the Objectives

Objective WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

In compliance with the BLM's Wilderness IMP Policy, Alternative A ensures the long-term protection of wilderness characteristics on Section 603 wilderness study lands, as well as identifies no actions which would adversely affect wilderness values on Section 202 study lands.

Objective WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Alternative A is applicable to the Owyhee RMP only after congressional wilderness designation of select Section 603 and 202 study lands in the resource area. Any activity plan required because of wilderness designation would have to have the protection of wilderness values as its primary objective.

Visual Resources

Change Agents

Vegetation treatments, fencing, water developments, watershed stabilization projects, wildlife guzzlers, recreation facilities and OHMV activities, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Alternative A prescribes managing all public lands in the resource area under one of four visual resource management (VRM) classes ranging from VRM Class II to Class IV as shown below (see Map VISL-A).

VRM Class	Acres
VRM Class I:	0
VRM Class II:	298,453
VRM Class II-IMP:	124,842
VRM Class III:	146,919
VRM Class IV:	749,777

VRM Class II would be the most restrictive class in Alternative A where the intent is to retain the natural character of the landscape. Class IV would allow substantial changes to the characteristic landscape. These classifications are defined in detail in Appendix VISL-1. Alternative A would not allow for any VRM Class I areas where pristine natural conditions would be preserved in the absence of wilderness designation. Wilderness study areas (WSAs) are to be managed under the BLM Wilderness Management Policy (IMP) to preserve their wilderness characteristics, including naturalness. Under the IMP, WSA lands are managed so that the imprints of man remain substantially unnoticeable in any given WSA as a whole. This is the intent of VRM Class II management whether a WSA is present or not. Class II allows for maintenance of existing facilities and prohibits additional surface disturbing projects within WSAs. The IMP encourages preservation of WSAs, or portions of WSAs, where pristine conditions exist. The association between IMP for wilderness resources and VRM Class objectives is discussed in detail in the wilderness impact analysis. In summary, impacts on the scenic quality of WSA lands would not be impacted in Alternative A as long as the IMP stays in effect. If WSA lands are released from the IMP, the visual quality of some WSA lands would be affected in the same manner as projected below for the various project developments identified in the three VRM classes in Alternative A.

Visual impacts would be most extensive from the implementation of vegetation treatment projects in VRM Class III and IV areas. The degree and longevity of visual impacts from such projects is dependent upon the type of treatment and the type of vegetative community involved.

Vegetation Treatments

In the juniper woodland communities (predominantly in the Jordan Creek and the northern half of the Owyhee River geographic reference areas), visual impacts would occur from prescribed fires in seral juniper stands and harvesting seral stands for fuelwood. Alternative A prescribes burning up to 121,600 acres over the next 20 years, about 6,100 acres per year. Much of this (55,700 acres) would be within the juniper woodland communities. In addition, commercial harvesting of juniper fuelwood is approaching 600 acres per year and could approach 1,000 acres per year by the year 2000. Cutting and burning could affect many of the fuelwood harvesting areas.

Within harvest areas, during the cutting period and for a number of years afterwards, the scenic quality of affected clear-cuts would be substantially reduced by a nearly continuous scattering of slash piles, numerous stumps about 8 inches in height, and constructed roads and jeep trails. The textures and colors of clear-cut areas would contrast sharply with those of surrounding woodland communities or the remnant sagebrush-grassland communities. However, the general shape or form of the clear-cut openings and the line defining them would mimic that of natural openings found throughout the woodland region. As a result, the adverse impacts on visual quality would diminish as the viewing distance increases. Once the viewing distance reaches several miles (beyond foreground viewing) and the presence of slash is not readily discernible, the visual impact would be minimal. As the clear-cuts regain an abundance of new understory vegetation (grasses, forbs and shrubs), and needles and bark fall from slash piles, the casual observer would not be readily able to distinguish between natural openings and clear-cuts. Mitigation of visual impacts for projects located in the background (generally greater than 3 miles) could be hastened through the use of post-cut prescribed fire. The fire would add a temporary (3 to 5-year) adverse impact on the landscape by blackening it, but would remove the contrasting cutting debris.

The duration of adverse impacts from a woodcut site viewed within the foreground (usually less than three miles) would be dependent upon whether the site receives a post-cut prescribed burn. Burns would generally occur from 2 to 5 years after tree harvesting. As with background viewing, the fire would generate its own adverse impacts on visual quality by adding a sharply contrasting black color to the landscape, yet would eliminate the effects of slash piles. With the aid of wind, rain, snow and natural or planted revegetation, the visual effects from the blackened ground would disappear within 3 to 5 years. Only blackened stumps would remain as a reminder of the woodcutting. The stumps could remain for 20 years or more with their visual presence only being lessened by the growth of surrounding shrubs that provide screening. In the absence of a post-cut fire, which is projected to occur about 25% of the time, slash and stumps would be visible well beyond 20 years with stumps lasting 50 years or more.

With cutting and post-burn effects lasting from 10 to 50 years, and cutting projected to occur at a rate of about 600 to 1,000 acres or more per year, it is highly probable that juniper fuelwood harvesting could contribute to reduced scenic quality on about 17,000 acres by the year 2018. At that time, about half of the acreage (8,000 acres) would retain the severe, short-term adverse visual impacts projected while the remaining acreage would be in varying stages of recovery.

In juniper woodland communities where only prescribed fire would be used, the effects of fire on visual quality would also depend upon viewing distance as well as the size of the trees involved. When viewed from the foreground, burned areas would contain numerous charred to partially charred tree skeletons and blackened earth and rock. Visual quality would be severely degraded by contrasts in line, form, color, and texture. The larger the trees involved, the greater the visual degradation would be. Partially burned trees could retain reddened dead foliage for 3 to 5 years. The reddish color may be seen for several miles, well into background viewing areas. Only after the needles have dropped would trees in close-background areas become indiscernible on the landscape. The presence of burned background trees would also be lessened as the blackened bark falls away to leave a light grayish wood color not readily detectable behind a back drop of sagebrush-grassland communities. This process could take more than 5 years. As in the foreground, burned larger trees would have more of a visual impact in the background areas by requiring greater viewing distances before becoming indiscernible. Foreground viewing of barkless tree skeletons would remain for as long as 50 years or more depending upon the size of trees burned.

Assuming at least a 5-year period before fire evidence would be reduced, and assuming that 2,800 acres of juniper woodlands would be burned each year independent of woodcut areas, it is highly probable that there would be as much as 14,000 acres of woodland landscape showing the more severe adverse visual impacts from prescribed fire each year. By the year 2018, the woodland communities could cumulatively show another 42,000 acres of residual burned skeleton forests having a lesser adverse impact on visual quality. In summary, it is highly probable that as much as 56,000 acres would have some degree of visual degradation by the year 2018. Since prescribed burning would be done annually to control the juniper woodland community, visual impacts from burning would always be present. However, over time the degree of impact would lessen because reburns would be affecting smaller and smaller age and size classes of encroaching seral trees.

In those areas where prescribed fire would affect sagebrush-grassland communities, the visual impacts would be minimal and of short duration. Prescribed fires in these plant communities would eliminate old-age sagebrush and return the ecological site to an earlier successional stage. This would leave a vegetative mosaic of open grasslands intermingled with remnant stands of big sagebrush on deeper soiled swale sites or low sagebrush on shallower, often stony, low ridgeline sites. This intermingling of line, form, color and texture caused by the variety of vegetation and rocky soil profiles, often including low, meandering bedrock ledges or plateau breaks, would be considered more scenic than a homogeneous landscape of sagebrush. The adverse effects of fire in the sagebrush-grassland communities would come immediately after the fire, and for the following one to three growing seasons when the blackened evidence of the fire persists. The fires would leave behind few vegetation skeletons. Those present would be small (sagebrush) and would be rapidly broken down by livestock and wildlife passage, wind, rain and snow. Because of the rapid recovery of visual quality on sagebrush-grasslands, and the relatively small amount of acreage to be burned at scattered locations, prescribed fire is not projected to be a major contributor to the cumulative impact of vegetation treatments on scenic quality in the resource area.

Cumulatively for burning and cutting, it is projected that more severe adverse visual impacts would occur on a total of 22,000 acres per year after the year 2018. An additional 50,000 acres would show a lesser impact due to natural recovery. These impacts would occur predominantly in juniper woodland communities. This acreage is about 28% of the woodland communities. There is currently no way to quantify how many acres of viewshed would ultimately be affected, either as foreground or background, by vegetation treatments. But given the type of topography and vegetation present, and the subsequently large viewsheds possible for any treatment site, some type of treatment site, whether detected as such or not, would be visible from nearly any observation point on over 50% of the woodland region. Without the limitations placed on treatments in VRM Class II areas, this percentage could exceed 75%.

Alternative types of vegetation treatments (chaining or chemical spraying) would produce effects similar to those associated with cutting and burning. In the case of spraying, blackened trees would be absent yet reddened foliage and tree skeletons would persist. Chaining would uproot trees rather than leave behind stumps.

Fencing

In VRM Class II areas, new range improvement projects should be less than those allowed in VRM Class III and IV areas in order to retain an essentially natural landscape. Existing projects would be reconstructed, if necessary, to meet a higher visual standard at the time of scheduled or required maintenance. Placement of fencelines across landscapes to exclude livestock from wetlands or to delineate and administer allotments and pastures would not directly affect visual quality, particularly in woodland areas. The fences would generally be unnoticeable on the landscape from short viewing distances. What would become noticeable would be the jeep and livestock and game trails which would eventually parallel one or both sides of the fenceline, and the differences in forage utilization that could result from differential levels of livestock use. The jeep trails would result from fence maintenance or off-highway vehicle recreation activities. These features could become substantially noticeable in what may have been an otherwise natural landscape. These effects are quite noticeable in the Owyhee Front SRMA where extensive OHMV use occurs and numerous miles of fence were constructed in the 1980s. Differences in forage utilization across fencelines can also produce a line separating the same vegetative community into two distinctively contrasting colors brought about by differences in the amount and type of forage consumed. The same effect, but more severe, can be caused by fenced seedings. There are examples of this throughout the resource area, particularly along fencelines which delineate boundaries between Federal, State and private lands as well as highway rights-of-ways.

Stream riparian and spring development exclosure fences can cause both beneficial and adverse impacts on visual quality on a localized basis depending on location. These fencing projects usually include an exclosure fence to exclude livestock from the riparian area, a headbox buried beneath the ground to trap water, and a buried water pipe that extends outside the exclosure to a trough (usually green). Construction would result in minimal surface disturbance and lead to an overall improvement in vegetative cover within the exclosure. Lush riparian communities add to the visual quality of the landscape through increased diversity in line, form, color and texture, as well as contribute to increased water which reflects color. However, the physical isolation of riparian areas from livestock use can also contribute to concentrated trampling and removal of vegetation outside the exclosure fence. In Alternative A, there is the potential for turning a number of viewsheds into ribbons of lush, green riparian vegetation bordered by livestock and game trails along the exclosure fences, thus generating lines and forms that would not be in harmony with natural features. There is the potential to create "boxes" of riparian landscapes that could affect viewsheds along water courses. To mitigate this visual impact in sheer-walled canyon areas of the

Owyhee River GRA, fences could be placed among the sheer topographic breaks that surround the canyons. Elsewhere, mitigation would be more difficult in predominately V-shaped drainages because fences would generally have to be placed in the bottomlands adjacent to the riparian areas, forcing livestock and game to trail along the fencelines. In these areas fences could be constructed to not run in straight lines for any great distance, to not remain an equal distance from the stream course along the length of the riparian area, and to tie into prominent natural features where possible. With such mitigation, the extent of fence development in Alternative A would probably not be sufficient to substantially alter the overall characteristic natural landscape of the resource area.

Livestock Reservoirs

As with fences, livestock water impoundments (reservoirs) can be designed to reflect concerns over visual quality depending upon the affected area's VRM classification. A higher visual standard would be achieved by emphasizing the use of line and form in the layout and construction and reconstruction of earthen dams. These two elements of the natural landscape would need to be mimicked during construction of the dam and impoundment area in order to successfully blend a reservoir into the natural landscape. Generally, the blending would require the use of curved lines to define a crescent-shaped, shallow-sloped dam form (the dam slopes to be of equal or lesser gradient than surrounding topography that defines the stream channel or draw). Such a dam would appear as a "natural" extension of surrounding topographic relief and would assure that the surface area of the impounded water appears as a small circular, oval or "teardrop" lake formation that harmonizes with the surrounding landscape characteristics. The presence of surface water would enhance the scenic quality of landscapes.

Restoration of native vegetation around the reservoir site could also lessen the visual impact of dam construction and surrounding surface disturbances by restoring the original landscape elements of color and texture. However, reservoirs, by their very purpose, concentrate livestock use which inhibits or prevents vegetation restoration. Vegetation restoration would also be difficult when borrow pits are used to construct dams. Borrow pits remove A and B soil horizons, leaving behind soil substrates that would be generally unsuitable for vegetative growth. These exposed substrate areas would not only reduce revegetation potential but usually would have a notably different color than surface soils which would make the dam site highly visible at greater viewing distances even though line and form standards would be met for the dam itself. Consequently, in VRM Class II areas, the use of dam building materials from outside the water impoundment area would be prohibited.

In VRM Class III areas, reservoir construction could occur without restricting numbers and attempts would be made to construct dams to the standards required in VRM Class II areas. Borrow pits could be used with discretion and top soils would be set aside to recover the pit area. In VRM Class IV areas, reservoirs could be constructed using more conventional methods with dam faces at 2:1 slopes (vertical:horizontal), straight lines defining the front of the dam as well as the water line behind the dam, and the use borrow pits. Such methods could introduce unharmonious straight, vertical or steep diagonally lines and "sharp" forms into the desert plateau landscape comprised of horizontal straight lines and subordinate curved or wavy lines and "soft" forms. However, in steep, mountainous terrain or draws, steeper diagonal lines and sharper forms may be appropriate to mimic terrain features. Since most of the resource area would be in VRM Class IV, this type of construction could continue to be the rule rather than the exception. However, there is currently a policy to build all new reservoirs to Class II standards whenever possible, allowing for deviation to the Class III and IV standards where necessary because of specific physical site constraints.

Pipelines

Water pipelines extending for many miles from the water source are often found in association with spring developments and wells. There is technology available to keep surface disturbances associated with laying pipelines to a minimum in deeper soil types. In shallower, rocky soils, bulldozed trenches could be required, thereby enlarging the linear disturbance which contributes to color, texture and line disharmony on the landscape. While disturbances could readily heal in many areas within 5 years, the pipeline would often parallel a maintenance road that would perpetuate the visual impact of the pipeline. The troughs used on pipelines would not be obtrusive, but could lead to the localized loss of vegetation from concentrated livestock use, somewhat reducing visual quality.

Watershed Stabilization Projects

Watershed stabilization projects would be used to secure eroding streambanks and prevent further erosion in side slope gullies, usually the result of concentrated grazing by livestock and recreation use. The projects would use unlimbed juniper trees to line stream channels (attached by steel cables) and rock gabion dams or wooden planks. Initial placement of these projects would include disturbance to riparian vegetation and soil areas or, in the case of juniper structures, would leave the stream lined with numerous, unsightly dead trees and an occasional exposed steel cable. Such disturbances would be short-lived. Disturbances associated with rock gabion dams would be mitigated by riparian vegetation regrowth and channel siltation in less than 5 years. Juniper logs would become imbedded in streamsides, as intended, within 5 to 10 years. Once vegetation is restored, usually to a degree beyond that present prior to the project, the affected stream channels would show an overall improvement in visual quality. The improvement would be attributed to the increased abundance, and sometimes diversity, of riparian vegetation. Increasing riparian vegetation along canyon bottoms would enhance the overall scenic quality of the landscape by enriching it with color and texture. These efforts could also improve the year-long abundance of surface waters that would enhance visual character.

Wildlife Guzzlers

Wildlife guzzlers would consist of a fence exclosure and an encatchment system that would look like a corrugated, square to rectangular piece of roofing set just above ground level. Such projects would usually be associated with dry climate areas of the Owyhee Front. As such they do not release water to generate riparian vegetation screening, but sagebrush and grasses could become dense within the exclosures. To mitigate the visual intrusion of these small projects, the guzzler sites could be painted a compatible color and placed to not draw attention within the affected viewsheds.

Recreational Facilities and Activities

Existing and proposed recreation site developments in Alternative A would be few and widely scattered and generally would not affect scenic quality of the resource area as a whole. Recreation sites would be designed to reflect concern for the four basic elements of the characteristic landscapes found in their viewsheds; form, color, line and texture. The Owyhee Front OHV Trailheads and Jump Creek Recreation Site facilities would alleviate OHMV-generated soil damage, public health and sanitation concerns, and excessive soil damage caused by indiscriminate foot trailings in sensitive vegetation communities. All these factors are contributing to a decline in visual quality at frequently used recreation sites. Recreation site developments similar to the North Fork Campground that could occur in Alternative A would reduce visual damage to recreation sites from concentrated recreation use as more and more people venture into the Owyhee Uplands plateau.

The foot/equestrian trail system prescribed in Alternative A for the North Fork Owyhee River region would allow increased public opportunities to experience the exceptional scenic qualities of the Owyhee Uplands plateau. At the same time, this development would result in both initial construction impacts and localized visitor use impacts. Initial impacts would include construction of trails along (lower North Fork) or across (upper North Fork) river channels currently unaffected by any development. Trails would average 2 to 4 feet in width, have longitudinal gradient objectives of 10% or less, and have constraints on the frequency of bridge crossings. Such trail characteristics would produce a trail system that would have minimal effects on visual quality. Vegetative screening from juniper woodlands and moderately dense to dense riparian communities coupled with careful location of necessary trail switchback areas (nestle behind rock escarpment) and bridge crossing (keep one bridge out of sight of the other) would keep the trail substantially unnoticeable on affected landscapes as a whole. Recreation use of the trails would result in localized trampling of vegetation and soil compaction at popular primitive campsites, leading to localized adverse visual impacts. These impacts could be kept to a minimum by periodically resting select campsites. Without such a trail system somewhere in the Owyhee Canyonlands to help manage recreation use, there is a moderate to high probability that unregulated foot traffic associated with increasing backpack use would eventually develop indiscriminate trailings along the river corridors similar to those present in Jump Creek Canyon. Monitoring of the portage trails around several rapids on the East Fork Owyhee River suggests that it would take a relatively small amount of recreation use to cause a serious trailing and erosion problem of talus slopes in the canyonlands. These trailings cause considerably greater visual degradation than would a constructed and maintained trail system.

Implementation of the Owyhee Off-Road Vehicle Management Plan (1987) in Alternative A would help mitigate visual impacts by prohibiting hill climbing activities at all but the Hemingway Butte site. Under the general closure authority of the ORV Plan, closing select sites to prevent further OHMV-related visual damage is projected. Through continued public education, maintenance and enforcement under the OHMV Limited - Level 1 designation, additional hill climbing areas in the West Rabbit Creek area and the Owyhee Front SRMA as a whole would be reduced or eliminated and OHMV trails would be limited to their current extent.

Elsewhere in the resource area, the ORV Plan prescribes a more restrictive OHMV Limited - Level 4 designation in visually sensitive areas where travel would be authorized on existing or designated roads and jeep trails. However, unauthorized OHMV travel is likely to continue in some areas despite the designation. Unauthorized OHMV travel is particularly acute in the Silver City area and is growing in the Juniper Mountain and Owyhee Canyonlands areas.

Energy and Mineral Development

Open pit mining operations at the Stone Cabin and DeLamar Mines are visible from many areas within the Silver City area and Jordan Creek watershed (VRM Class II) and surrounding VRM Class III and Class IV lands. Impacts on visual quality vary within the region depending upon the viewer's elevation and slope aspect. When in full view of the mining operation, impacts on visual quality are significant in both the short term and long term, and can only be partially mitigated. Cumulative impacts on visual quality in the Snake River and Jordan Creek geographic reference areas from past and existing mining are already considered to be substantial. Localized visual degradation is projected to continue from ongoing mineral exploration and development activities in the Silver City Range. There is currently a low probability that mineral development of the magnitude of the DeLamar and Stone Cabin mines would occur in other nearby mountains, as adjacent areas have been thoroughly explored and appear to have low mineralization.

While much of the Owyhee River geographic reference area is currently considered to have low mineral development potential, there is a low to moderate possibility that exploration activities could come to this region of the resource area and also cause an irreversible and irretrievable loss of visual quality. Of greatest concern are the Owyhee Canyonlands where geological structures associated with fracturing and faulting invite exploration. As with the steep slopes of the Owyhee Mountains, exploration activities which would deface the canyon walls of the Owyhee River system cannot be rehabilitated, partially destroying what is considered by many a national scenic treasure. Only wilderness designation or the wild river designations prescribed in Alternative A would ensure the long-term protection of the East Fork, South Fork and upper North Fork Owyhee River by withdrawal of public lands from mineral entry. For details concerning impacts of mineral exploration and development in the Owyhee Canyonlands, refer to the Owyhee Canyonlands Wilderness EIS.

Along the Owyhee Front, and in the Owyhee Canyonlands area, there is a low potential for the exploration of oil and gas resources. For the purposes of environmental analysis, the Owyhee RMP provides a development scenario relating to these resource uses. In both areas, the oil and gas activities would introduce a series of small facilities to explore and extract discovered reserves. On the plateau surrounding the Owyhee Canyonlands, such developments would seriously contrast with the characteristic elements of the vast, open, relatively flat natural landscape. Viewsheds have the potential to be quite large. It is projected that 5,100 acres of plateau lands would have scenic quality substantially reduced by oil and gas activities in the scenario given in the Owyhee Canyonlands Wilderness EIS. Visual impacts could not be notably reduced by alterations in facility design and coloring. Along the Owyhee Front, rolling, highly convoluted peneplain topography could be used to mitigate the developments. However, because of their vertical character as compared to the somewhat horizontal character of the natural landscape found in the Owyhee Front as a whole, some level of adverse impact on visual quality is projected in very localized viewsheds.

Utility Corridors

The Owyhee Canyonlands Wilderness EIS also provides a development scenario for a high voltage powerline utility corridor through WSAs ID-16-49D and 16-52 lying just west of the Duck Valley Indian Reservation. In the alternatives presented in the wilderness EIS there are 10,330 to 10,760 acres of WSA lands where scenic values could be substantially reduced by powerlines in the absence of wilderness designation. The impact would be caused by the introduction of large, vertical, columnar forms and vertical lines of towers as well as surface disturbances from construction and maintenance roads into a vast, open, relatively flat plateau landscape. It is projected that an additional 25,000 acres of non-WSA lands could also be affected by utility corridor development. This visual impact could be mitigated or prevented by the alternative wild river designation for the East Fork and South Fork Owyhee River.

Conclusion

Implementation of Alternative A would result in the widespread degradation of scenic quality in the woodland communities of the resource area from vegetation treatment projects. It is projected that about 28% (72,000 acres) of the woodland region would exhibit slight to severe impacts on scenic resources over the next 20 years. Affected viewsheds in the woodland region could exceed 50% of the land base. However, over the long term (20-50 years), vegetation treatments would produce a highly scenic landscape diverse in the four basic landscape elements (line, form, color and texture). Widespread visual degradation to a severe degree in also projected to occur from ongoing mineral exploration and development activities in the Owyhee Mountain Range. Range improvements combined with recreational use (mostly OHMV activity) and small scale mineral activities would cause localized slight to severe adverse impacts that would eventually contribute to an overall slight decline in the scenic quality of the resource area. Development of recreation facilities to manage both motorized and nonmotorized recreation use would cause some alteration of natural landscapes, yet would have some beneficial localized impacts on scenic quality at isolated, specific sites and areas by mitigating damage caused by concentrated recreational use.

In the absence of wilderness or wild river designations in the Owyhee Canyonlands region, utility corridor developments would be likely to cause severe, adverse visual effects on as much as 35,760 acres. Should fluid mineral exploration also come to the plateau surrounding the Owyhee River, an additional 5,100 acres could have substantial adverse visual impacts during the exploration period, or over the long term if reserves are discovered. Locatable mineral exploration in the canyonlands could also degrade highly scenic areas.

Meeting the Objectives

Objective VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Alternative A would not fully meet this objective because it would not provide for any VRM Class 1 designations to protect the highly natural and highly scenic areas of the resource area. VRM Class 1 designations are essential to meeting recreation objectives RECT 1, RECT 2, RECT 3 and RECT 5.

Cultural Resources

Change Agents

Scientific collection, mining activities, OHMV activities, livestock grazing, wildlife habitat exclosures, streambank stabilization, acquisition and weathering and decay.

Impact Analysis

Planned actions which produce adverse impacts on cultural resource sites are limited by management procedures to scientific collection and excavation, and would only occur in situations where scientific research by an accredited entity (such as a university or other research organization) is permitted. These impacts would be mitigated, however, by the compilation of scientific data which are deemed to be significant by the archaeological profession. Beneficial impacts are produced by management strategies designed to preserve scientific data for future use, or for recreational or educational use. This includes protection accorded to the Oregon Trail and the existing Guffey Butte/Black Butte, Silver City and DeLamar National Register Districts.

Adverse impacts which occur to cultural resource values as a result of the implementation of projects generated by other resource activities are generally diminished by the performance of project specific cultural resource inventories in advance of project implementation. If it appears (as a result of a cultural resource inventory) that a cultural resource site would be adversely impacted by project implementation, the project be redesigned to avoid the impact. Should this not be possible, adverse impacts would be mitigated by appropriate strategies, including scientific excavation and collection, depending on the significance of the site in question. A significant exception to this would come from projects conducted under the Mining Law of 1872. It is often not possible to respond within a reasonable time frame to potential adverse impacts caused by mining operations. The potential also exists for adverse impacts to occur from unrestricted OHMV use, and from livestock trampling, especially in riparian areas.

Impacts on cultural resource sites from minerals related actions could continue in the Lambert Table and Rooster Comb Peak areas since no ACEC designation or special management to protect cultural resources is prescribed for these high cultural resource value areas in Alternative A.
Additional adverse impacts on cultural resource values would occur from natural weathering and decay.

Beneficial impacts on cultural resource sites could occur as a result of projects generated by other resources. Wildlife exclosures could have the effect of isolating a cultural resource site from adverse impacts from livestock grazing, riparian treatment plans could benefit cultural resource sites by providing streambank stabilization, restrictions on OHMV use could lessen the effects of vandalism, and lands actions taken to block up Federal land holdings could facilitate the management of large clusters of significant cultural resource sites.

Cultural resources are fragile and non-renewable, and adverse impacts are generally cumulative through time. Therefore, short-term impacts (such as a single occasion of vandalism) could increase in severity from natural forces (erosion, etc.) so that the long-term (20 year) effect increases in severity. In alternative A, fewer than 10% of the sites known to be deteriorating from the effects of change agents would be visited to determine site condition and mitigation needs. It is probable that during this period of time many of the 444 sites known to be deteriorating would be destroyed.

Conclusion

Beneficial effects would accrue from actions taken to actively manage cultural sites, such as site condition evaluations to determine rate of deterioration, and from the implementation of cultural resource management plans for areas containing significant cultural resource sites (Rooster Comb Peak, Lambert Table, Sinker Creek). Other beneficial effects would accrue as a result of the implementation of land treatment programs (riparian, wildlife exclosures, etc.) land exchanges and recreation program restrictions on OHMV use.

Adverse impacts would occur to the majority of sites known to be deteriorating from the effects of change agents, including minerals program actions, especially in the Rooster Comb Peak area; livestock trampling, especially in the Lambert Table area; and natural forces.

The overall effect over the duration of the plan would be generally adverse.

Meeting the Objectives

Objective CULT 1: Protect known cultural resource values from loss until their significance is determined.

5 years: This objective would not be met.

20 years: This objective would not be met.

Objective CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

5 years: This objective would be met for Guffey Butte/Black Butte Archaeological District/ACEC, Silver City and DeLamar Historical Districts and Oregon Trail; but not met for Rooster Comb Peak, Lambert Table and Sinker Creek ACEC's.

20 years: This objective would be met for Guffey Butte/Black Butte Archaeological District/CEC, Silver City and DeLamar Historical Districts and Oregon Trail; but not met for Rooster Comb Peak, Lambert Table and Sinker Creek ACEC's.

Objective CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

5 years: This objective would be met.

20 years: This objective would be met.

Hazardous Materials

Change Agents

Land use authorizations and mining activities.

Impact Analysis

The Bureaus approach to hazardous materials management on public lands in this and all alternatives (1) seeks to prevent the generation and acquisition of hazardous wastes; (2) is intended to reduce the amounts and toxicity of wastes generated; (3) provides for the responsible management of waste materials in order to protect the natural resources as well as the people who live and work on and those who use Bureau-managed lands; and (4) provides for aggressive clean up and restoration of Bureau lands that are contaminated by waste materials.

All proposed activities on public lands would be thoroughly analyzed as to whether materials potentially hazardous to the environment and the public welfare would be affiliated with the activity. A full disclosure of all hazardous materials, their use, storage, transport, and disposal would be required prior to authorization.

The largest hazardous materials site in the resource area is the DeLamar Mine. The cyanide heap leach pond and cyanide pond are on public lands and are permitted by the State of Idaho. Large quantities of chemicals and fuels are transported over Bureau administered roadways as part of this mining operation. Operation of the Stone Cabin Mine would require additional chemicals and fuels.

Conclusion

The overall impact of Alternative A on hazardous materials management would not be substantial.

Meeting the Objectives

Objective HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands.

This objective would be met.

Areas of Critical Environmental Concern

Change Agents

Relevant change agents for each area are listed below. The impact analysis for each of these change agents applies to those areas where identified. Impacts on specific areas are addressed where notable. See Table ACEC-4A for a tabular impact analysis summary.

- Guffey Butte/Black Butte Archaeological District: recreation use.
- Owyhee River Bighorn Sheep Habitat Area: livestock management, recreation use and OHMV activities.
- Boulder Creek Outstanding Natural Area: livestock management.
- North Fork Juniper Woodland Outstanding Natural Area: water developments, livestock management, fencing, recreation use and OHMV activities.
- Cinnabar Mountain: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Coal Mine Basin: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities and recreation use.
- Hells Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- Jump Creek Canyon: fencing, fire management, fluid minerals activities, mineral materials activities, recreation use and OHMV activities.
- Juniper Creek Watershed: livestock management, juniper removal, fire management, locatable minerals, recreation use and OHMV activities.
- Juniper Mountain: water developments, livestock management, fencing, locatable minerals activities, recreation use and OHMV activities.
- Lambert Table: livestock management.
- McBride Creek: rights-of-way, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Pleasant Valley Table: livestock management, fire management, fluid minerals activities and recreation use.
- Rooster Comb Peak: rights-of-way, juniper removal, fluid minerals activities and OHMV activities.

Sinker Creek: rights-of-way.

- Sommercamp Butte: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities and OHMV activities.
- Squaw Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- The Badlands: rights-of-way, water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- The Tules: recreation use.
- Upper Deep Creek: water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.

Impact Analysis

Surface, subsurface, and aerial rights-of-ways are currently excluded from the Owyhee River Bighorn Sheep area, North Fork Juniper Woodland, and The Tules (within the Bighorn Sheep area). Granting subsurface rights-of-way in the other areas would have short-term and potentially long-term adverse impacts on botanical, cultural, scenic, watershed and wildlife resources. Ground disturbance, depending on topography and soils, would cause erosion and disturbed sites could be invaded by exotic plant species. In areas occupied by special status plants, exotic plant invasion would be detrimental to the native populations. Exotic plants would also potentially alter the composition of botanical reference areas. Because of the limited availability of native plant species for rehabilitation projects and the difficulty of reestablishing vegetative cover on some sites, subsurface rights-of-way would detract from the scenic and biological quality of some areas. Surface rights-of-way that require no ground disturbance would typically not impact botanical and cultural resources, however scenic qualities could be adversely affected, as could some wildlife species. Impacts from ground disturbing surface rights-of-way would be similar to those for subsurface rights-of-way. Overhead rights-of-way would adversely affect scenic values and potentially raptor populations, but their impact on botanical, cultural, watershed and other wildlife would be either short-term or absent, depending on the extent and requirement for surface disturbance.

Water developments such as springs, reservoirs, pipelines and troughs in areas recognized for their high quality or unique botanical resources (either rare plant or excellent condition communities) would adversely impact these resources on a short-term and long-term basis. Adverse impacts would arise directly and indirectly from construction (vegetation destruction, alteration, weed invasion), increased livestock concentrations (trampling, grazing), and the shifting of livestock into sensitive areas. Areas with no existing water, steep slopes and low grazing pressure would particularly be adversely affected by such actions. However, pipelines that pass through an area in order to disperse livestock could have a beneficial impact by moving livestock away from significant resources and effectively lowering use in such areas. Some wildlife species would benefit from construction of reservoirs, however the majority of the areas, with the exception of the Owyhee River Bighorn Sheep Habitat Area where reservoir construction is restricted, were not identified for wildlife resources. Forty-five spring developments, 19 reservoirs, and 3 miles of pipeline with troughs are identified in Alternative A.

Water developments typically have an adverse impact on scenic qualities by detracting from an area's natural appearance. Spring development and dewatering adversely impacts riparian vegetation, scenic qualities and wildlife, particularly amphibians and fish populations, by reducing water availability at the source and altering the habitat. While the existing policy of fencing water sources and overflows to protect the habitat would have a beneficial impact on the vegetation, watershed and wildlife, it adversely impacts scenic values. Water developments would not adversely impact cultural values since surveys for cultural resources would be conducted prior to any ground disturbing activity. When cultural resources are located, they would either be avoided or the impacts would be mitigated.

Lack of restrictions on salt placement and grazing use would generally have a long-term adverse impact on most of the areas. Currently salt can be placed anywhere except by water, putting colonies of special status plants, representative plant communities, cultural sites, some wildlife species, and scenic viewsheds at risk in the immediate vicinity of the blocks. Changes in livestock grazing regimes that effectively increase use and subsequent trampling would potentially lower the biological diversity of the areas, as well as adversely impact some cultural resources and wildlife, special status species, and scenic qualities. Indirect increases in grazing use occur when range fires displace livestock into areas that normally receive low levels of use. Some of the areas have had little historic grazing, often due to their steep and rocky terrain. Within or adjacent to such areas, the addition of range improvement projects such as pipelines, reservoirs, and fencing would increase grazing use and trampling impacts by effectively extending the season-of-use.

Pasture fencing projects would vary in their impact on an area, depending entirely on their placement and subsequent changes in use by livestock and wildlife. Pasture fences could effectively increase livestock use in some areas, resulting in long-term adverse impacts on the vegetation, scenic quality, and cultural resources due to the higher concentrations of animals and potential increase in bare ground. However, the opposite could also be true. Installation of a pasture fence could eliminate or decrease livestock use of a particular area, resulting in a long-term beneficial impact due to improved livestock management. Seventy-nine miles of pasture fence are identified in Alternative A.

Exclosure fences would have a beneficial or adverse impact, again depending on their placement and to what extent they displace livestock. In general, pasture fence and exclosure construction has a direct, short-term adverse impact on the vegetation of an area as disturbance occurs but is typically minimal (scraping of ground is not permitted). Scenic qualities would potentially be lowered by poor placement of an exclosure. Long-term adverse but localized impacts would probably result from animals trailing in a narrow corridor along the fences. Exclosure fences would also have a beneficial impact on wildlife, vegetation, and cultural resources by excluding livestock. One-hundred thirty seven miles of exclosure fence are identified in Alternative A.

Western juniper is a plant community component in twelve of the twenty areas (Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, North Fork Juniper Woodland, Cinnabar Mountain, Hells Creek, Juniper Creek Watershed, Juniper Mountain, Lambert Table, Pleasant Valley Table, Rooster Comb Peak, The Badlands, Upper Deep Creek). Of the twelve areas, juniper removal is currently prohibited in all or portions of seven of them (Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, North Fork Juniper Woodland, Hells Creek, Juniper Mountain, Lambert Table, Pleasant Valley Table). The 1987 amended Owyhee Juniper Woodland Harvest Management Plan imposed restrictions on these areas for the protection of wildlife habitat, scenic or natural values, to maintain climax juniper stands, or because of their WSA status. In Alternative A, 55,700 acres of juniper are identified for burning and 17,000 acres are identified for cutting.

Juniper removal has been identified as a Change Agent for four of the twelve areas - Juniper Creek Watershed, Rooster Comb Peak, The Badlands, and Upper Deep Creek. Implementation of Alternative A would essentially have no impact on the other eight areas.

Removal of juniper in The Badlands would have a long-term adverse impact on the quality of this area as an RNA and potentially on Simpson's hedgehog cactus, a BLM sensitive species. While the direct impacts of juniper burning on special status plants would probably be short-term, indirect impacts caused by vegetation removal and subsequent erosion could be detrimental. It is doubtful that juniper removal by burning would be successful due to the sparseness of the understory for carrying fire, the abundance of rock, and the discontinuous juniper habitat. Because of the associated roads and slash piles that would develop, cutting juniper to remove it would have a greater adverse impact on special status plants and scenic values than burning. The high scenic value of The Badlands, Juniper Creek Watershed and Upper Deep Creek would be adversely impacted by juniper removal.

All fire-related management actions, including suppression, vehicle use and rehabilitation, would be open and allowable in 7 of the 20 areas. Either portions or all of the remaining 13 areas already have fire management restrictions in place and would incur no adverse impacts. Both short-term and long-term adverse impacts would result in the event of fire management. Because of fire's role in the development of most plant communities, the interruption of this process through suppression efforts would alter the successional course. The research and educational value of RNAs would be diminished by active suppression management. Suppression would preclude the opportunity to monitor and research natural recovery of relatively undisturbed plant communities. Because many of the areas are in relatively high ecological condition, fires would not burn as intensively as in areas dominated by exotic annuals. Thus, recovery would be faster and plant communities would continue to be dominated by natives.

In forested areas under suppression management, unhealthy trees would continue living, potentially serving as a disease source for unaffected individuals, potentially leading to higher mortality and catastrophic fire. In certain areas, interruption of the natural fire process could increase juniper density to an undesirable level. The use of soil-disturbing emergency fire vehicles outside of existing roadbeds would create short-term and possibly long-term erosion problems, depending on the level of the disturbance. Vehicle disturbance would have a long-term adverse impact on natural plant community processes and potentially on special status plant species.

The absence of constraints on rehabilitation could have both a beneficial and adverse impact. Beneficial impacts would result if, for example, the area burned intensively with high loss of vegetation and native species were successfully seeded to reduce erosion, essentially helping maintain the soil resource. However, should exotic species be used, native plant recovery, including that of special status species, would probably be impeded by competitive interaction with the exotics. The composition of the plant community could be permanently altered and set on a different course of recovery than if it were allowed to recover on its own.

Although fluid mineral development is unlikely in most of the resource area because of its geology, exploration activities could occur. Exploration would have either a short-term or long-term adverse impact on scenic, wildlife, botanical, watershed, and cultural resources. Short-term impacts would arise from the exploratory phase due to increased OHMV use and subsequent road development. Wildlife disturbance, vegetation degradation, erosion caused by ground disturbance and long-term impacts in the form of site degradation would result from most fluid mineral development projects. In existing ACECs and other special management areas where constraints are identified fluid mineral activities would have minimal or no adverse impact. Adverse impacts could be minimal or absent for fluid mineral exploration in several of the large areas (i.e., Juniper Mountain, Lambert Table, Rooster Comb Peak), where numerous access roads already exist and where potential impacts on identified resource values would be mitigated. In addition to the surface stipulations designed to mitigate impacts, portions or all of Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Area, Juniper Creek Watershed, Juniper Mountain, Lambert Table, Sinker Creek, and The Tules are closed to fluid mineral activities.

Mineral material disposal would have either a short-term or long-term adverse impact on scenic, wildlife, botanical, and watershed resources in all currently undesignated areas, depending on the intensity of disturbance. Areas with high cultural values would not be adversely impacted since surveys for cultural resources would be conducted prior to approval of any discretionary action. Areas with existing special designations would incur no adverse impacts since these areas are already closed to mineral material disposal. Adverse impacts that would occur would be similar to those for fluid mineral exploration and development. Impacts would arise from increased OHMV use, road development, vegetation degradation, and erosion caused by ground disturbance. The remoteness and difficult access of some areas would probably preclude mineral materials disposal.

Except for those areas with existing special management protection that have been withdrawn from mineral entry, other areas would be adversely impacted by locatable mineral activities. Exploration and development would have a short-term and long-term adverse impact on plant communities, on scenic values, on wildlife, on special status plant and animal species and on watersheds, depending on the intensity of the activity. Compared to exploration, development would generally have a longer term impact on most of these resources. While mining claims are present within some areas (i.e., Cinnabar Mountain, Coal Mine Basin, McBride Creek, Squaw Creek), locatable mineral potential is generally rated as moderate in most of them due to their geology. However, three of the areas with existing claims have experienced historic or recent mining disturbance, and their plant communities and special status plant species (smooth stickleaf, Cusick's false yarrow, barren milkvetch, Owyhee clover, Malheur yellow phacelia) would be vulnerable to long-term impacts (roads, mineral extraction, heavy equipment), especially where disturbances less than five acres in size would not require a plan of operation. Areas recommended for special river designations are segregated from mineral entry pending a Congressional decision. Impacts on these areas in all alternatives would be beneficial in regards to potential mineral development.

Development within ten Special Recreation Management Areas (SRMA) totalling 313,258 acres, implementation of the Back-country Byways program, and construction of equestrian and foot trails would increase public use at each of these areas and potentially in adjacent areas as well. While designation as an SRMA implies intensive management while minimizing changes in the present level of natural conditions, overall long-term adverse impacts would occur in those areas within or adjacent to developed recreational sites. Guffey Butte/Black Butte, Jump Creek, Juniper Mountain, Juniper Creek Watershed, and North Fork Juniper Woodland would likely be impacted by SRMA and Back-country Byway designation. Habitat deterioration from concentrating human use would occur, both directly and indirectly, by vegetation trampling, vegetation destruction, and the unintentional introduction of exotic plant species. Displacement of wildlife species, increased disturbance and removal of cultural artifacts and impacts on scenic resources would increase with an increase in use. Impacts would likely increase over the next 20 years as population increases continue.

Designation of 94 miles of the East and South Fork Owyhee Rivers as national wild/recreational rivers would also substantially increase public use in areas that currently receive very little use. The Owyhee River Bighorn Sheep Area and The Tules may be adversely impacted by such a designation in terms of increased public use.

Both short-term and long-term adverse impacts are projected from OHMV activities. Leaving areas with an "open" OHMV designation rather than closing them to OHMV activities would potentially cause degradation of scenic, biological, wilderness, and cultural resources. Spur trails from existing roads and entirely new roads may develop, increasing erosion, imposing on scenic and wildlife values, and altering native plant communities. New roads and trails often serve as avenues for exotic plant introductions, as openings become available for the exotics to occupy. The value of areas in good or excellent condition that are important as rangeland reference areas would be lowered. Specific areas that would be impacted include Cinnabar Mountain, Hells Creek, portions of Juniper Mountain and Rooster Comb Peak, Squaw Creek, and Upper Deep Creek.

Leaving some areas in a "Limited" OHMV designation, namely those areas with high wilderness values or bighorn sheep and special status plant and animal resources, would have a long-term adverse impact on these resources. Such areas include the Owyhee River Bighorn Sheep Area, North Fork Juniper Woodland, The Badlands, Lambert Table, Juniper Mountain, The Tules, and Boulder Creek. Road access creates the potential for wildlife conflicts, for spur roads to develop, and for degradation of scenic and wilderness qualities as recreational use in the Owyhees increases.

Conclusion

The overall impact of Alternative A on the areas is projected to be adverse. Major contributing change agents include the continuation of current livestock grazing and salting practices, projected increases in livestock water developments, OHV use increases, habitat loss and disturbance from mining activities, increases in recreational activities, and rights-of-ways.

[illegible]

Meeting The Objectives

Objective ACEC 1: Designate Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and apply special management to protect the values identified.

This objective would not be met, as 16 areas determined to meet the relevance and importance criteria for establishment as ACECs would receive no special management to protect their identified resources. In Alternative A, only those four areas with existing designations would receive special management protection. These areas include Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Area, Boulder Creek, and North Fork Juniper Woodland.

Social and Economic Conditions

Change Agents

Population and recreation growth, livestock grazing levels and social structure.

Impact Analysis

Population Impacts:

Greater Idaho's population is projected to increase throughout the next 20 years. Population growth has been a dynamic force in the current economic growth in southwestern Idaho. Between 1990 and 1993, regional population has grown by 37,700 or 11. 3% within the four-county region of Ada, Canyon and Owyhee Counties in Idaho and Malheur County in Oregon (Bureau of Economic Analysis, Regional Economic Information System). However, population growth has taken on new dimensions, including quality of life considerations, here in this latter part of the 20th century. Recent migration has been toward smaller urban or rural areas and away from the large overcrowded metropolitan areas. Quality of life factors such as lower taxes, less inflation, lower crime rates, economic boom and leisure and recreational opportunities are sighted as reasons for this migration trend. This has resulted in increased pressure on the public land to provide a socially acceptable mix of land uses; away from consumptive use toward more nonconsumptive or preservation and retention in the public domain. The Owyhee Resource Area will continue to see increased pressure as regional population growth from nearby Ada and Canyon Counties drives demand for alternative, and often conflicting, uses of these public land resources. Thus, the present dynamic that is causing the change in the rural/urban interface will continue to put pressure on the historical use of the public land resources and BLMs management of those resources in the future. The following impact analysis is based on the modeling of ranch budgets for typical ranch operations within Owyhee County and computer modeling using input/output analysis of the regional economy for Owyhee, County, Idaho as discussed in Chapter 3 and in the appendix. (See Appendix SOCE-2 for a short summary of the modeling technique used in this impact analysis.)

Ranch Level Impacts:

Increases in the number of Animal Unit Months (AUMs) permitted for livestock grazing (96,676 AUMs to 135,116 AUMs, or 38,440 AUMs) will have positive economic impacts on the ranch community in general. Average income above operating costs under this alternative would increase for each ranch operation (see below).

[redacted]

Ranch Operating Impacts:

	Per Ranch Average	Total
Jordan Valley	$ 3,040	$112,500
Marsing	$ 11,400	$ 90,900
Bruneau	$ 250,500	$250,500
Total		$453,900

County Economy Impacts:

Direct and indirect output into the economy would increase by $585,000 under this alternative. Regional income would increase by $195,000 and total employment would increase by 4.

County Level Impacts:

Total Industry Impact	
Direct plus Indirect	$584,700
Total Value Added	$218,600
Total Regional Income	$194,900
Total Economic	$803,300
Total Employment	4

Recreation Impacts:

General recreation activity is projected to increase approximately 70% between 1998 and 2018. However, it is not suggested that the increased recreation activity would be in response to BLM actions, rather, the regional population growth would be the root cause of any additional recreational activity on the public lands in the planning area. Very little of this activity will translate into increased economic activity within the county since most goods and services associated with recreational activities within Owyhee county are purchased outside the county. In fact there may be added costs to Owyhee County's budget for increased search and rescue and law enforcement activities.

Social Impacts:

Economic pressures on the ranching and rural communities within Owyhee County will continue to grow as external forces (i.e., regional population growth; regional economic growth; and financial institutional change) continues to mount. However, this alternative, by itself, should not have an appreciable social impacts. This alternative should provide some stability to the ranch community and have the same affect on the rural communities since it allows for continuation of grazing activities at the present level.

Conclusion

Positive impacts are projected for the local/regional economy because of increases to regional output of goods and services, and employment. The impact is not projected to be significant enough to cause financial hardships for the local or regional infrastructure to handle increased demand. Social services and other factors that currently contribute to the quality of life locally and regionally would not be significantly affected.

Alternative B

Air Resources

Change Agents

Prescribed burning, mining activities, national river designations, road construction, plow and seed operations and aerial pesticide/herbicide application.

Impact Analysis

A total of 440,603 acres are identified for possible prescribed burning over the next 20 years. Up to 22,000 acres per year would be treated. Individual burns would be limited to 3,000 acres. During these operations a one to two day localized decrease in air quality would occur. By limiting the size of the burn, allowing a time interval of 72 hours between burns, conducting burns when climatic factors are optimal for good dispersion, and coordinating with other air quality influencing actions in the area at the time of the burns (to reduce potential cumulative impacts), impacts from this action would not be substantial.

Mining operations have several sources of air pollutants. Sources of particulate (i.e., dust) emissions in mining operations include drilling, blasting, and ore collection in the mine pit, plus wind erosion from ore pits, ore loading into trucks, trucks moving over haul roads, and trucks dumping ore into piles, ore loading onto conveyors and ore crushing into small processing sizes, crushed ore screening and crushed ore smoothing, waste rock smoothing in waste piles and wind erosion from waste piles.
The active DeLamar Mine is currently the major source of these types of emissions in the resource area. Air quality impacts due to the Stone Cabin Mine are addressed in the Stone Cabin Mine EIS and will not be addressed in this document. Cumulative impacts of the DeLamar and Stone Cabin mining operations would have an insubstantial impact on local air quality in the area. Impacts projected from small scale mining operations would not be substantial due to the limited size and nature of these operations, although if in the same vicinity of the DeLamar and Stone Cabin sites they would add to the cumulative impact.

Designation of 66 miles of the East Fork of the Owyhee River as a national river would result in eventual withdrawal of this reach from mineral entry. This would preclude any impacts on air quality associated with mining or mineral exploration.

Impacts from road construction, plow and seed operations, and aerial application of pesticides/herbicides would result in minor short-term impacts on air quality dependent on size of the operations and adherence to best management practices during the operations.

Conclusion

The overall impact of Alternative B on air quality would not be substantial.

Meeting the Objectives

Objective AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

If proper procedures are followed and BMPs implemented the objective would be met in Alternative B.

[redacted]

Soil Resources

Change Agents

Livestock grazing, livestock water developments, OHMV activities, fluid mineral and locatable mineral activities, rights-of-way, special designations and vegetation treatments.

Impact Analysis

In Alternative B, it is estimated that broad based erosion rates could decrease slightly on the rhyolite/basalt plateaus and Owyhee (mountain) uplands. There is a projected upward trend in watershed condition due to range improvements and the implementation of grazing systems. The low elevation areas draining into the Snake River could have a slight increase or no change in broad based erosion rates under the proposed management in these areas. These slight increases in soil erosion would be in part due to the increase in poor ecological condition, particularly where perennial range species give way to increaser shrubs/annual grass species and the inability for microbiotic soil crusts to reestablish. The area most affected by this increase is the Snake River Sediments. These soils are also more susceptible to surface disturbance from livestock trailing and concentration.

Projected increases in livestock levels (over the 20 year period) would be implemented in conjunction with grazing management practices and the range treatments/developments proposed.

Development of livestock water projects could result in degradation of the soil resource at and in the general vicinity of these sites. This degradation would be in the form of soil compaction, mechanical disturbance of the soil surface by hoof action, and loss of vegetative protective cover. The probability of this occurring is high. By selecting sites that are not in compaction prone soils and adhering to established BMPs some of these impacts could be mitigated.

Impacts on the soil resource in the form of soil erosion, loss of productivity, and soil compaction from OHMV activities could increase in Alternative B. The modified "Limited" designations is projected to lead to a general increase in new trails, especially in the Owyhee Mountains, South Mountain and Juniper Mountain where OHMV activity is increasing. Impacts would continue to be substantial within the Owyhee Front SRMA and Fossil Creek OHMV management unit. OHMV use would cause mechanical disturbance to the soil surface and destruction of the protective vegetative cover (this includes vascular plants and soil stabilizing microbiotic soil crusts). Mechanical disturbance from OHMV activities could result in destruction of soil aggregates, formation of channels, and a sloughing of washes. More heavily utilized trails would widen and become more deeply moguled and rutted as use levels increase. With the projected increase in casual and competitive OHMV activities, mitigating measures would be needed to protect the soil resource (especially on the highly erosive soils). Monitoring of accelerated soil erosion (gullies and rills) would be done at specific locations to study impacts of recreational activities and aid in trail segment management decisions.

Fluid mineral and locatable mineral activities could cause substantial soil erosion (and subsequent sediment delivery and productivity losses) depending on the size and scope of the project. Access road construction, drill pad installation, mineral extraction actions, and other surface disturbing activities would be the primary causes. Impacts on the soil resource from these actions would be localized to the specific area of disturbance. The extent of these impacts would be determined by the amount of activity, advances in mining and mitigation techniques, type of operation, location, and other factors. Overall, impacts on soils attributed to mineral activities over the next 20 years is projected to increase.

Right-of-ways could cause varying degrees of disturbance. No substantial impact on soils is projected from construction of pipelines, powerlines and telephone lines after construction is finished. Roads, especially unsurfaced roads, would cause both short and long-term erosion problems.

Designation of 66 miles of national rivers would result in withdrawal of 20,960 acres of associated lands from mineral entry and avoidance of potential impacts associated with these activities as projected above in the minerals activities analysis. It would also result in strict limitations on vehicle travel and associated impacts as projected in the above OHMV activities analysis. This would result in a beneficial impact on the soil resource.

Vegetation treatments on an estimated 458,693 acres (prescribed burning 356,723 acres; burn and seed, 83,880 acres; and woodland harvest, 18,090 acres) according to established standards is projected in Alternative B. Prescribed fire would be the treatment method most often used. Other treatment methods would include chemical and mechanical. The projected acreage for chemical and mechanical treatments is about 35,000 acres over the next 20 years. Vegetation treatment projects would cause varying degrees of disturbance. This would depend on the type and size of the treatment (and, over the long term, the success). By following established BMPs, impacts from these treatments could be reduced. Soil erosion (by wind and/or water) and subsequent sediment delivery and loss of productivity would be a short-term impact. Ash from prescribed fire treatments may act as sediment (moved by wind and/or water) and affect water quality. After successful revegetation occurs a long-term improvement in watershed condition could result.

Conclusion

The overall impact of Alternative B on the soil resource would be slight with some isolated areas (OHMV activity on high erosion hazard soils) having a moderate adverse impact. Broad based erosion levels on the high rhyolite/basalt plateaus and the Owyhee (mountain) uplands could decrease slightly. Broad based erosion levels would remain the same or could increase slightly in the low elevation areas draining into the Snake River (Snake River Sediments area most affected). Streambank stability would improve where there is an effective grazing system or protection.

Meeting the Objectives

Objective SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

It is estimated that this objective would be met, or making significant progress toward meeting it, on up to 80% of the resource area in Alternative B. This estimate is based on the projection that the actions implemented under this alternative (which are based on the estimated funds, $5,550,374, would be available to complete the minimal amount of range projects proposed in this alternative and that the vegetation treatments proposed are successful) would provide, in many cases, adequate amounts of ground/canopy cover (determined on an ecological site basis) to support proper infiltration, maintain soil moisture storage, soil productivity, and stabilize soils.

Objective SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

It is estimated that this objective would be met, or making significant progress toward meeting it, for up to 75% of these situations (streambanks being a major source) once effective management systems/protection have been implemented under this plan. Many of the roads and trails (particularly those that are on soils with high erosion hazard ratings) would continue to be a source of localized accelerated soil erosion. The requirement/implementation of BMPs at the individual project planning level will prevent future problems.

Water Resources

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Livestock grazing impacts on water quality would not significantly change over the short term (5 years) from the current situation. Over the long term (20 years), as riparian condition improves, an estimated 78% of all BLM stream miles would be in satisfactory condition if grazing were the only impact analyzed. This improvement would result mainly from implementation of effective livestock grazing systems which benefit riparian vegetation and improve streambank stability as described in Alternative A. Water quality would improve on these stream miles to meet State water quality standards in Alternative B.

Point and nonpoint source mining impacts on water quality would be similar to Alternative A. Impacts from historic mining activities would not change from the current level.

Adverse impacts on water quality from OHMV activities would occur on about 1,130,000 acres in Alternative B as the number of acres classified as having few limitations increases over Alternative A. OHMV activities would reduce vegetative ground cover resulting in increased upland erosion and increased sedimentation of stream channels as described in Alternative A. Initially, impacts would occur primarily along the Owyhee Front, but would expand to the southern portion of the resource area over 20 years.

Increases in precipitation runoff and reduced infiltration would occur as the number of prescribed burns proposed increase significantly over Alternative A. Prescribed burns would occur on about 440,000 acres over the next 20 years.

Water right claims for domestic use would be filed on unappropriated waters. Minimum instream flow applications would be filed on high value streams. Water rights for water development projects would not be filed.

Conclusion

Livestock grazing systems combined with other management actions would result in satisfactory stream condition on an estimated 75% of BLM stream miles over a 20 year period. Control of livestock use in riparian areas would result in improved buffering and filtering function, increased streambank stability, and improved stream channel shading which would all contribute to improved water quality. State water quality standards would be met on these stream miles in Alternative B.

Meeting the Objectives

Objective: WATR 1: Meet or exceed State of Idaho water quality standards on all federally administered waters within the Owyhee Resource Area.

This objective would be met on an estimated 75% of BLM stream miles in Alternative B. This would occur primarily in allotments where grazing systems are implemented to improve riparian condition.

Objective: WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

In Alternative B, domestic water use on unappropriated waters would be provided for through compliance with State water law and in accordance with State licensing processes.

Vegetation

Change Agents

Livestock grazing, vegetation treatments, weed control, livestock water developments, fencing, wild horse management, OHMV activities, and mining activities, .

Impact Analysis

The primary impacts to the vegetation resource will be as a result of livestock grazing practices. Maintaining current livestock seasons-of-use could adversely impact vegetation. Spring grazing has the potential to adversely impact native upland vegetation, especially in those areas in an early seral stage or located below 3,500 feet elevation as livestock use would occur during the plant's active growth and food storage phase. Although most plants are sensitive to grazing during this time period, studies have shown that bluebunch wheatgrass is extremely sensitive to grazing during active growth (Anderson, 1991). This early use has the potential to prevent substantial improvement on those range sites where bluebunch wheatgrass is the dominant grass species. These sites cover over 50% of the resource area.

Adjusting active preference from 135,116 AUMs to 150,145 AUMs could adversely impact vegetation. Although vegetation treatments would initially improve ecological status on approximately 169,570 acres, increased livestock use could result in declining condition on these treated sites and prevent improvement on the remaining acres not identified for any type of vegetation treatment. This impact would be mitigated since upward adjustments in active preference would not occur until monitoring data indicates that the vegetation objectives would continue to be met with increased livestock use.

When any species or class of vegetation is allowed to dominate a large area, ecological diversity, forage production, and plant vigor will be adversely impacted. At the same time if one species or class of vegetation is eliminated or substantially reduced over a large area similar impacts could be projected. Prescribed burning and juniper woodcuts are tools for treating vegetation to maintain the preferred mix of habitat components or to meet specific management objectives or desired plant communities within a given area. In Alternative B, 348,283 acres of sagebrush/grass communities and 110,410 acres of juniper have been identified for treatment.

Short-term impacts (2-3 years) from prescribed burns (440,603 acres) and juniper woodcuts (18,090 acres) would be adverse as vegetative structural diversity is decreased by reducing or eliminating the predominant species (sagebrush or juniper) at each site. Long-term effects would be beneficial by improving ecological diversity, ecological site condition, forage production, and plant vigor of these selected areas.

Seeding 83,880 acres would adversely effect (short-term and long-term) the vegetative diversity of those areas where native species would be replaced with nonnative species. Seedings would likely convert mid seral status range sites to treated sites. Depending on the initial success of the seeding, degree of livestock grazing, effectiveness of the initial control of woody species, and amount of maintenance performed over time, the life span of a seeding could exceed 30 years. Because some sagebrush eventually reinvades most treated sites, maintenance of these seedings could be necessary every 10-20 years to control brush and extend the life of those seedings.

Seedings could have a beneficial impact on an area if they are used to stabilize soils or to reestablish native species not projected to become established naturally. However, overall impacts on vegetation are projected to be adverse.

Beneficial impacts are projected for forest land biodiversity by retaining 32,600 acres of remnant Douglas-fir forests within the resource area.

Noxious weed control would have a slight beneficial effect on vegetative diversity by maintaining the integrity of native plant communities by reducing or eliminating undesirable species. Beneficial impacts, through noxious weed control, are also projected in those areas where OHV use occurs. OHV activity has the potential to remove vegetation which then allows noxious weeds to become established at those sites.

Development of 86 livestock water projects would have site specific adverse impacts (short-term and long-term) to vegetation through increased grazing pressure and livestock concentration near available water. Developing springs and pipelines could also result in reduced water availability at spring sources or streams resulting in degraded riparian/wetland habitat. These adverse impacts could be partially offset by reduced grazing on vegetation in other portions of the allotment. However, by protecting the spring source on all identified spring developments, beneficial impacts are projected through improved riparian/wetland habitat at these sites.

Construction of 30 miles of riparian/wetland exclosure fences would have beneficial impacts within these areas. By excluding livestock, these exclosure fences would allow for improvement within these riparian/wetland areas.

Construction of 101 miles of pasture division fences would have a beneficial impact on vegetation by allowing grazing systems to be implemented that could provide rest or deferment within an allotment. Additional pastures should then provide improved livestock distribution and utilization levels within these areas.

Adverse impacts are projected from these fences due to livestock trails that normally become established along fence lines and the potential for construction and maintenance roads along these fences. These roads then have the potential to become areas for OHMV activity. Overall, impacts from these fences are projected to be beneficial.

Impacts on vegetation caused by wild horses would not be significant. Wild horses would graze season long but at levels determined not to be detrimental. As wild horses increased some would be gathered to maintain appropriate number of wild horses and not exceed carrying capacity.

Designating all existing historic trails as available for OHMV activity would have adverse impacts on vegetation by allowing OHMV use to occur in areas previously unavailable to this type of activity. OHMV use in these areas could adversely impact vegetation through damage to the foliage, root systems, and seedlings and uprooting of small plant cover and disruption of root systems of larger plants by sheer stress induced in the soil (Wilshire, Shipley and Nakata 1978). This disturbance would then cause loss of native vegetation, increased soil erosion, and invasion by noxious weeds.

Although most OHMV disturbance would be linear, with limited acreage affected, concentrated use areas would also adversely impact vegetation around OHV trailheads (developed and undeveloped). As the population of southwestern Idaho continues to increase it is projected that existing trails will deteriorate from increased use, causing more unauthorized trails to become established. It is also projected that OHMV activity will move south in the Owyhee Mountain range, particularly the Silver City area, causing new trails to form, leading to additional loss of vegetation in those areas.

Mineral activities have the potential for adverse impacts on vegetation on a site-specific basis. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations. Refer to the Stone Cabin Mine EIS for a detailed analysis of mining impacts.

[redacted]

Conclusion

Although beneficial impacts are projected from vegetative treatments (169,570 acres), ecological conditions on the remainder of the resource area, especially areas in an early seral stage or located below 3,500 feet, are projected to improve only minimally within 20 years. Factors such as climate, soils, competition from other species, available sources of seed on site, livestock season-of-use and livestock stocking levels will determine the amount of time needed to move from one seral stage to the next. Even with complete livestock removal succession can be extremely slow, sometimes requiring 20-40 years (Sanders and Voth 1983 and Tisdale, Hironaka, and Fosberg 1969).

Meeting the Objectives

Objective VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

This objective would be met in Alternative B primarily through the mechanism of vegetation treatments. The table below outlines the projected changes in ecological status for this alternative. These projected changes are based on the prescribed burns, woodcuts, seedings and changes in livestock grazing management that are proposed under this alternative.

	Baseline		20-Year Projection	
Seral Stage	Acres	Percent	Acres	Percent
Early seral	565,830	43%	556,785	43%
Mid seral	555,130	43%	382,321	29%
Late seral	137,797	11%	281,905	22%
PNC	2,203	<1%	2,203	<1%
Treated	37,814	3%	75,560	6%
Total	1,298,774	100%	1,298,774	100%

Objective FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Alternative B generally meets the objective to retain forest land biodiversity, yet does not give clear direction as to the ecological values of some dead material remaining within the forest environment.

Objective FORS 2: Use juniper harvesting to help achieve a desired plant community.

Alternative B would meet the objective of achieving desired plant communities in the resource area by controlling juniper by harvest methods on 18,090 acres, by prescribed burning 92,320 acres of juniper dominated sites and by burning an additional 348,283 acres, mostly sagebrush dominated, sites being encroached upon by juniper within 20 years.

Riparian-Wetland Areas

Change Agents

Livestock grazing, mining activities, OHMV activities, livestock water developments and land tenure adjustments.

Impact Analysis

Livestock grazing impacts would not significantly change over the short term (5 years) from the current situation. The type of impacts would be the same as described in Alternative A. Over the long term (20 years), implementation of grazing systems designed to improve riparian condition would result in satisfactory condition on an estaimated 78% of all BLM riparian miles in Alternative B if grazing were the only impact analyzed.

Mining impacts on riparian areas would not increase in Alternative B Nonpoint source impacts from historic mining operations would continue as described in Alternative A.

OHMV impacts on riparian areas would occur on about 1,130,000 acres classified as "open" or having few limitations in Alternative B. OHMV activities would result in both upland and riparian area erosion, as described in Alternative A, as vegetative cover and streambank stability are decreased. Initially, impacts would occur primarily along the Owyhee Front, but would expand to the southern portion of the resource area over 20 years.

Development of livestock water facilities would have the same type of impact on riparian areas as described in Alternative A. The change from Alternative A in the number of water developments consists of a 19 mile increase in pipelines. Reservoir and spring developments would remain the same as Alternative A.

Conclusion

Livestock grazing systems in combination with changes in grazing utilization patterns and other actions would result in satisfactory riparian condition on an estimated 75% of all BLM riparian miles over 20 years. Implementation of grazing systems in riparian areas would result in improved buffering and filtering function, increased streambank stability, and improved stream channel shading which would all contribute to improved condition.

Meeting the Objectives

Objective: RIPN 1: Maintain or improve riparian-wetland area to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

This objective would be met on an estimated 75% of all BLM riparian miles in Alternative B.

Wildlife Habitat

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activities, OHMV activities, other recreation actions, special designations, reservoir enhancement, land tenure adjustments and land use authorizations.

Impact Analysis

The implementation of AMPs and associated grazing systems within ten years on all grazing allotments should result in improved riparian and upland wildlife habitats. Within the life of this plan, an estimated 75% of riparian habitats are projected to be in satisfactory condition. However, proposed levels of mid-and-late season grazing and a substantial loss of browse from prescribed burning is projected to result in some increased utilization and declining vigor of remaining browse and increased competition with mule deer and, to a lesser extent, elk for the remaining browse forage. Other impacts of livestock grazing in general would be similar to those described in Alternative A.

The overall effect of vegetation treatments on 73,482 acres of juniper woodlands (about 29% of existing juniper woodlands) and 208,970 acres of big sagebrush habitat (35% of existing sagebrush habitat) would be to substantially increase the acreage of grassland habitat and herbaceous forage production while reducing overall woody vegetation cover, structure and browse forage. See Chapter IV - Introduction - Changes in Ecological Status for assumptions used. Increases in vegetation diversity and eventual increases in browse production would be expected in some treatment areas where juniper has resulted in a loss of most understory vegetation. An estimated 146 wildlife species occur within big sagebrush communities and an estimated 135 within western juniper communities (Thomas and Masser, 1984). Among game species, sage grouse are projected to be among the most adversely effected by the large reduction in sagebrush habitat while mule deer and, in some cases, elk would suffer from the large reduction in all woody vegetation. Pronghorn are projected to benefit from the reduction in woody vegetation, except on winter and fawning habitats where shrubs are a critical component . A number of other species would also benefit but the overall impact of this level of vegetation manipulation is projected to be adverse to the majority of wildlife species.

The estimated 30 miles of riparian exclosure fence would result in rapid and, in most cases, substantial improvement of habitat for a large diversity of wildlife species but would be approximately 100 miles less than that excluded in Alternative A. Benefits would be in the form of enhanced quantity and quality of forage, cover and water. This along with the additional 101 miles of pasture fence would, however, also result in additional impediments to big game movements and possibly a small increase in wildlife death losses from fence entanglement. It would also result in some habitat deterioration within a narrow corridor immediately adjacent to fences where cattle use and trailing is more concentrated. However, the total fence mileage and associated adverse impacts would be substantially less than that projected for Alternative A and the overall long-term impacts of fence construction are projected to be beneficial based on the improvement in riparian and, in some cases, upland habitats resulting from improved livestock management.

Development of 45 springs and 19 stock reservoirs (both the same as Alternative A) and 22 miles of pipeline (19 more than Alternative A) would provide some additional upland water for wildlife (approximately 19 additional troughs) but would also result in additional adverse impacts as described in Alternative A. Reservoir development could result in additional habitat for waterfowl, amphibians and adversity of other species, especially if all or a portion of the reservoir is fenced to exclude livestock or islands are developed. However, in Alternative B, only reservoirs with a surface area of five acres or larger would be considered for fencing which would eliminate most, if not all, from consideration. Although the localized impact of livestock water development to most wildlife species and in most areas is projected to be adverse the overall impacts as they relate to implementation of grazing systems and AMPs should be positive.

Impacts of mineral related activities including exploration and extraction of locatable, saleable and leasable minerals would be very similar to those discussed in alternative A. The only change would be within areas which would have been withdrawn from mineral entry and closed to materials sales and fluid minerals leasing under Alternative A. These include Wild and Scenic River segments and some ACECs. In Alternative B suitability recommendations for these special designations would be postponed pending further study and it is projected that fewer acres would eventually be designated as either Wild and Scenic River or ACEC. This would result in more area potentially being open to mineral related disturbance which would result in additional adverse impacts on wildlife. Both short-term and long-term impacts are projected to be adverse.

A projected 74% increase in OHMV activity by the year 2018 is expected to result in some increase in adverse impacts to most wildlife species and habitats. In the short term, the bulk of OHMV activity impacts are projected to occur within the Snake River GRA because of its close proximity to population centers. In the long term, even though 420,434 acres would be converted from "Open" to Limited IIA category within the southern half of the resource area, adverse impacts are still projected to increase throughout the resource area as major use areas along the Owyhee front become more and more congested due to the lack of user constraints and people seeking a higher quality experience begin to move into less congested areas. Initially, allowing for the use of historic trails area-wide and sand washes over more than half of the resource area, along with the elimination of all seasonal use restrictions, would result in levels of wildlife habitat and population disturbance similar to those described for alternative A. Theoretically however, through monitoring, site specific activity planning most impacts should be mitigated or minimized over the long term.

In Alternative B, a Recreation Management Action Plan would be developed which would assess the validity of all existing SRMAs and the need for establishing any additional SRMAs. If and when existing SRMAs are released from SRMA designation they would, for the most part, be subject to increasing levels of OHMV activity, other forms of recreational use and a variety of other impacting actions which could increase the adverse impacts to wildlife species in these areas. Since no specific SRMAs or management actions were identified for deletion or addition, no specific impact assessment can be done.

As with SRMAs, Alternative B only proposes to study rivers and river segments for inclusion in the National Wild and Scenic Rivers System. No specific rivers or river segments were recommended for inclusion, although specific actions were identified which would maintain continued multiple recreation uses and establish designated equestrian, foot and OHMV trail systems within river segments as they are designated. By allowing intensive recreational use within designated river segments and reducing the number of miles recommended as eligible for designation, adverse impacts in the form of wildlife population and habitat disturbance would be projected to increase over the long term. California bighorn sheep, pronghorn, mule deer, nesting raptors and a diversity of other species could be effected. Short-term and long-term impacts would be adverse.

Upgrading or reconstruction of facilities at seven recreation sites and construction of foot and equestrian trail systems would likely result in increased public use at and in the general vicinity of each of these sites. Impacts would be similar to those identified in Alternative A except that special restrictions on vehicle access and special recreation permitting associated with facilities and trails within areas identified as SRMAs in Alternative A may not apply. The more liberal initial OHMV designations would have an increased adverse impact within the vicinity of most or all developed recreational facilities, at least until monitoring, evaluation and sit specific planning has been completed. Initially, there could be an increase in physical habitat deterioration and disturbance or displacement of wildlife in excess of that identified in Alternative A. However, over the long term, most adverse impacts should be eliminated through site specific monitoring, planning and mitigation. .

Impacts of equestrian events and guiding and outfitting services would be similar to those identified in Alternative A. Short-term and long-term impacts are projected to be slightly adverse and projected to increase over the next 20 years, although monitoring, activity planning and mitigation should minimize adverse impacts.

Construction of wildlife water developments and waterfowl nesting habitat improvements at reservoirs would provide the same type of benefits as described in Alternative A. In Alternative B, however, improvements (i.e. fencing, planting and islands) would be restricted to only those reservoirs exceeding five acres in size. Since it has not been determined how many, if any, of the 19 new reservoirs would exceed five acres, impacts of this action can not be determined but are projected to be minimal.

As discussed in Alternative A, land tenure adjustments to consolidate public lands through State or private exchange can have either a beneficial or adverse impact on wildlife depending upon which parcels are involved. Since no specific land tenure adjustments were identified in Alternative B no specific impact assessment can be made. However, since actions identified in Alternative A to acquire high quality wildlife habitats were not included in Alternative B, the net effect to wildlife of implementing Alternative B would likely be adverse.

In Alternative B, land use authorizations (rights-of-ways, leases and permits) would continue to have a mostly adverse impact on wildlife as habitat is dedicated to other uses. ROWs and easement acquisitions identified in Alternative B are identified specifically for motorized access, OHMV and other types of recreational access. These and most other types of land use authorizations can be projected to result in substantial, long-term alteration or destruction of habitat for a variety of wildlife species. Although most affect a relatively small area the cumulative impact over 20 years could be significant. Short-term and most long-term impacts would be adverse.

Conclusion

Alternative B depends heavily upon activity planning, monitoring and evaluation to determine levels and types of allowable uses and to determine the need for any protective or limited use designations. With the exception of riparian exclosure fencing, it also stresses unspecified mitigation to repair resource damage as opposed to protection or restricted use to prevent resource damage. This emphasis on activity planning, evaluation, monitoring and mitigation, although making it more difficult to assess the true impacts of Alternative B with any degree of accuracy should result in the long term avoidance or resolution of most adverse impacts to wildlife and wildlife habitats if adequate personnel and budgets are provided. With this in mind, dramatic increases in vegetation treatments; fewer areas excluded from mineral exploration, mining, materials sales and fluid minerals leasing; expanding OHMV and other recreation activity; and reduced emphasis on special designations including ACECs, Wild and Scenic Rivers and SRMAs are all projected to have mostly adverse impacts while implementation of AMPs and associated livestock grazing systems, implementation of recreation and various other activity plans, livestock exclosures, wildlife water developments and some vegetation treatments are all projected to have mostly positive impacts on wildlife habitats and populations.

Meeting The Objectives

Objective WDLF 1:. Maintain or enhance the condition, abundance and distribution of plant communities and special habitat features required to support the large diversity and desired numbers of wildlife inhabiting public lands within the Owyhee Resource Area.

This objective would be partially met. The development and implementation of AMPs and associated grazing systems on all allotments within ten years; development and implementation of activity plans for the management of recreation, wildlife, wild horses; construction riparian exclosures and wildlife waters and some vegetation treatments should all combine to improve wildlife habitat values over the long term. However, the projected treatment of more than 282,000 acres of woody vegetation, fewer initial restrictions on OHMV and other recreational activities and fewer initial and, possibly long term, reductions in the number and size of special (protective) designations are all expected to result in the loss and/or deterioration of key plant communities and habitat features and continued maintenance of others in unsatisfactory condition.

Fishery Habitat

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Implementation of livestock grazing systems would result in slight improvement in fish habitat conditions over the short term (5 years). Implementation of grazing systems designed to improve riparian condition would result in satisfactory condition on an estimated 64% of all BLM stream miles over 20 years in Alternative B if grazing were the only impact analyzed. Improvement would result from improved riparian vegetation condition and streambank stability as described in Alternative A.

Point and nonpoint source mining impacts on fish communities and biodiversity would not increase in Alternative B. The major impacts would be sedimentation and acid rock drainage from historic mining operations as described in Alternative A.

OHMV impacts on fish communities and aquatic biodiversity would occur on about 1,130,000 acres in Alternative B as the number of acres having few limitations increases. OHMV activities would result in a loss of ground cover which would lead to increased upland erosion and fine sediment deposition in streams as described in Alternative A. Initially, impacts would occur primarily along the Owyhee Front but would expand to the southern portion of the resource area over 20 years.

Impacts on aquatic species habitat from prescribed burns would increase in Alternative B. The primary impacts on aquatic communities would be increased sediment. Prescribed burns would be conducted on about 440,000 acres over the next 20 years.

Conclusion

Livestock grazing systems designed to improve riparian condition would result in an increase in satisfactory fish habitat conditions over a 20 year period. Grazing systems in combination with other management actions would result in satisfactory condition on approximately 60% of all BLM stream miles. Control of livestock use in riparian areas would result in increased streambank stability and improved stream channel shading which would all contribute to improved fishery habitat condition.

Meeting the Objectives

Objective: FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

This object would be met on an estimated 60% of all BLM stream miles in Alternative B.

Objective: FISH 2: Improve reservoir fishery when appropriate, in consultation with State agencies and adjacent landowners.

This objective would be met on the majority of reservoirs in Alternative B.

Special Status Species

Special Status Plant Species

Change Agents

OHMV activities, livestock grazing, mining activities, vegetation treatments, livestock water developments, fencing, recreation use, land use authorizations, land tenure adjustments, ACEC designations and national river designations.

Impact Analysis

While this alternative proposes to "monitor recreational vehicle use and provide management guidance to avoid adverse impacts to all significant resources", the projected 74% increase in OHMV activity over the next twenty years, in addition to access to the entire resource area via use of existing and historic trails and sand washes, would result in long-term adverse impacts to many of the resource area's 31 known special status plant species. Most of this increased activity is projected to occur within the Snake River geographic reference area, where topographic and geologic conditions are most favorable for OHMV users and because of this area's proximity to population centers. This is also where many of the resource area's special status plants are located. Impacts to special status plant species are projected to be adverse, although the degree of impact would generally be less for species present on rockier soil types. Impacts would be both direct and indirect, including degradation of habitat and plants and weed introductions resulting in habitat modification and increased competition for resources. Although 420,434 acres would be converted from an "Open" to one of several "Limited" categories within the southern half of the resource area, the restrictions prescribed in the "Limited" categories relative to the restrictions prescribed in Alternative A would be adverse for special status plant species.

Implementation of AMPs, grazing systems and livestock exclosures would potentially have a beneficial impact on special status plants. However, the large acreages of vegetation treatments proposed in combination with these systems, in addition to the projected 11% increase in stocking levels over the next twenty years, would be adverse over the long-term for special status plants. Continuation of domestic sheep grazing within the resource area would also be adverse for special status plants that occur in sheep allotments. Most special status plants are small forbs, and therefore provide preferred browse for sheep.

Impacts from mining activities are projected to be similar to slightly more adverse than those projected in Alternative A. Mining activities would continue to have a long-term adverse impact on special status plants, and are projected to be most severe within the Snake River and Jordan Creek geographic reference areas, where a variety of localized materials (i.e. zeolite, bentonite, diatomaceous earth, oolitic limestone) are found. Many of these materials comprise the habitat of special status plant species.

While fluid and material mineral constraints are similar in Alternatives A and B, 122,962 fewer acres are recommended for locatable mineral withdrawal in Alternative B than in Alternative A. These acreages are within the Owyhee River Bighorn Sheep Area, Boulder Creek, North Fork Juniper Woodland, and Pleasant Valley Table potential ACECs. Species potentially affected by mining activities in these four areas include Simpson's hedgehog cactus, rattlesnake stickseed, and dimeresia. Special status plant species and their habitat would continue to be destroyed and fragmented in Alternative B. The extent of impacts would be determined primarily by the amount of activity, location and mining techniques.

An estimated 110,410 acres of western juniper are identified for cutting or burning in Alternative B. This would be 37,710 acres more than Alternative A. The increased acreage would come primarily from the acreage identified for burning (92,320 acres). As discussed in Alternative A, most of the special status plants listed in Table SPSS-1 do not occur in juniper habitat. However, for the four that do (Osgood Mountains milkvetch, Simpson's hedgehog cactus, least phacelia, and dimeresia), the impact of these actions could be either beneficial or adverse. Because of the similar acreages (18,090 vs. 17,000), Alternative B's impact on special status plants from juniper cutting would be comparable to Alternative A. Short-term and potentially long-term adverse impacts would be slightly greater in Alternative B due to the additional roads and debris and slash piles that would be required. Prescribed juniper burns are not projected to have a long-term adverse impact on special status plants in general, and could benefit these species in some cases. Adverse impacts could occur if burn sites are chosen that lead to the domination of a site by exotic plants rather than the desired native plant component.

In Alternative B, 348,283 acres of sagebrush are identified for treatment, including prescribed burning (264,403 acres) and prescribed burning and seeding (83,880). These acreages are significantly higher than those identified in Alternative A (52,500 prescribed burn and 13,400 burn and seed). Plant species that could be impacted include Osgood Mountains milkvetch, inch-high lupine, least phacelia, and others, depending on project location. In Alternative A, prescribed sagebrush burns were projected to have a long-term beneficial impact, as long as areas are burned where invasion by exotic plants is not projected. However, the extremely large acreage identified for burning in Alternative B, a fivefold increase over Alternative A, would potentially cause significant adverse impacts on special status plants because of the greater overall habitat alteration that would occur. The required inventories for special status plants of such a large area prior to burning would be impractical. The long-term adverse impacts of prescribed burning followed by seeding would also be significantly higher than those discussed in Alternative A, due to the much larger acreage affected (67,980 acres more than Alternative A).

Construction of livestock water developments identified in Alternative B include livestock reservoirs (19), pipelines and associated troughs (22 miles), and spring developments (45). Only the number of pipeline miles and troughs differ from that identified in Alternative A. Impacts on special status plants would be slightly more adverse than in Alternative A due to the redistribution of livestock into previously little used areas. Impacts would primarily be long-term and indirect. While project or site specific clearances for special status plant would be conducted, it is difficult to assess the indirect but associated impact of some water developments on special status plants, as trailing routes and changes in use patterns are not always predictable. In some cases special status plants could benefit by improved dispersion of livestock if livestock are prevented from concentrating in rare plant habitat. Direct impacts on special status plants would depend upon exact project locations, but in general, adverse impacts are projected to be minimal, since site examinations would be conducted prior to project approval.

The impact of 101 miles of pasture fence construction (23 more miles than identified in Alternative A) on special status plants is projected to be adverse if it results in livestock concentrating within special status plant habitat. While actual fence construction may have no direct impact on these species, the indirect impact of these additional fencing miles could potentially be high. Because field exams are not typically extended into adjacent areas and because complete inventory data is lacking, it is possible that unknown special status plant populations would be adversely impacted by the construction of new fences and subsequent changes in public land livestock use. Fencing could benefit special status plants when the fence improves livestock distribution and relieves pressure on the plant's habitat. Riparian or canyon associated species that could benefit include rattlesnake stickseed, Simpson's hedgehog cactus, and Hall's rush.

In Alternative B, deletion or addition of specific SRMA designations are not identified, making it difficult to assess impacts. If and when existing SRMAs are released from SRMA designation, they would typically be subject to increasing levels of OHMV use and a variety of other impacting actions. It is projected that these activities would increase adverse impacts on special status species in these areas.

Prior to approval and issuance of any right-of-way, lease or permit, site examinations for special status plants would be conducted to prevent adverse impacts to these species. Adverse impacts could occur if examinations were done at an inappropriate time of year. Because land use authorizations could result in substantial surface disturbance, special status plants could be indirectly impacted by fragmentation of habitat and the introduction of exotic plants into disturbed areas. In general, Alternative B is projected to have a greater long-term adverse impact on special status plant species than Alternative A because it would allow expanded motorized access throughout the resource area.

As discussed in Alternative A, adjustments in land tenure would have either a beneficial or adverse impact on special status plant species, depending on the purpose of the acquisition or exchange and the parcels involved. In Alternative A, these adjustments would generally be beneficial, as Bureau policy typically would not permit exchange or sale of public lands occupied by special status species, unless lands of a higher biological value are to be acquired. Alternative A specifically identifies habitat acquisition for special status plants when deemed necessary to ensure a species' continued survival. In Alternative B, land tenure adjustments would be based on those lands with irregular boundary lines, fenced federal range, or with isolated locations. While these adjustments could incidentally benefit special status plants, the lack of specific habitat acquisition for these species suggests the net effect to special status plants of implementing Alternative B could be adverse.

In Alternative B, impacts from the designation (retention) and special management of four areas as ACECs or ONAs (Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, North Fork Juniper Woodland) would be similar to those identified in Alternative A. Long-term impacts could be slightly beneficial for several special status plant species, including Simpson's hedgehog cactus and rattlesnake stickseed. However, because of the interagency annual review process prescribed for all existing and potential ACECs relative to current multiple use management, and the possibility that one or more of the four existing areas could have their special management designation removed, it is projected that Alternative B could generally have a long-term adverse impact on ACEC values.

In Alternative B, only those river segments that already have been recommended to Congress for special river designation are identified for protection (East Fork Owyhee - 66 miles). Consequently, the overall long-term impact of Alternative B on special status plants is projected to be adverse relative to the greater number of miles recommended in Alternative A (94 miles). Additionally, because Alternative B prescribes specific actions that would maintain continued multiple recreational uses and establish designated equestrian, foot, and OHMV trail systems within designated river segments, the benefits to special status plants obtained solely through special designation would likely be offset.

Conclusion

The overall impact of Alternative B on special status plants is projected to be adverse. Major contributing change agents include expansion of OHMV activity with fewer access restrictions; an 11% increase in livestock AUMs; increased potential for habitat destruction from mining related activities; dramatic increases in vegetation treatments (sagebrush removal) and pipeline miles, and a slight increase in pasture fence miles. Several special status plant species could benefit from fencing of riparian/wetland habitats, but this would not offset the adverse impacts associated with other prescribed management actions.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

Based upon the limited availability of baseline inventory and monitoring data for many of the known 31 special status plants, it is difficult to determine how they would respond to the management actions identified in Alternative B. However, it is reasonable to assume that species growing in habitats that would continue to be heavily impacted, such as the Snake River and northern tip of the Jordan Creek geographic reference areas, would decline. This could contribute to the listing of some plant species as federally threatened or endangered. This objective would likely not be met for the plants found in these heavily impacted areas.

Special Status Animals

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activities, OHMV activities, other recreation actions, special designations, reservoir enhancement, land tenure adjustments, d land use authorizations and implementation of activity plans.

Impact Analysis

The implementation of AMPs, grazing systems and livestock exclosures should generally improve habitat for the majority of special status animal species. Riparian dependant species should experience the greatest benefit under this alternative, which is projected to result in a total of 75% (489 miles) of stream riparian habitat being in satisfactory condition within 20 years. This is a 60% improvement over the current situation and 43% improvement over Alternative A and would benefit all of the special status species associated with these improved habitats, possibly including mountain quail, sage grouse, Preble's shrew, spotted frog, leopard frog, redband trout and several species of special status bats and neotropical migrants. Continuation of domestic sheep grazing within the resource area would, however, continue to pose a risk of disease transmission to California bighorn sheep as these populations continue to grow and expand. The overall short-term and long-term impact of AMP development and improved livestock management is projected to be positive.

The number livestock water developments and resulting impacts would be very similar to those identified in Alternative A, although, the additional 22 miles of pipeline and associated troughs could result in additional habitat disturbance to any special status species in the immediate vicinity of these troughs. In addition, only reservoirs with a surface area of five acres or larger would be considered for fencing which would eliminate most, if not all, from consideration and limit beneficial impacts to associated special status species such as spotted frogs, leopard frogs and western toads. Under this alternative, approximately 90 fewer miles of new pasture and exclosure fence would be construct and associated impacts on special status animals would be proportionately less than under Alternative A. Although localized impacts to some special status species are likely to be adverse, the overall, long term impacts of livestock management project implementation should be beneficial as it relates to implementation of activity plans and improved livestock management.

Prescribed burning to eliminate 55,320 acres of juniper woodlands and 208,970 acres of big sagebrush habitat, compared with an estimated 33,420 acres and [illegible]540 acres juniper and shrub habitats burned in Alternative A. This is projected to result a substantial loss of habitat for pygmy rabbit, sage grouse and several species of bats and neotropical migrants, although a portion of the area treated would eventually have become unsuitable for many of these species as a result of the loss of shrubs to juniper dominance of the site. While juniper woodcuts could result in a loss of roosting habitat for some bats and neotropical migrants it could improve habitat for pygmy rabbit, sage grouse and several other neotropical migrants by preventing or reversing the loss of understory vegetation. Burrowing owls, long-billed curlew, northern harriers, grasshopper sparrow and bighorn sheep could also benefit from conversion of juniper woodland and shrub habitats to more open habitats, in some areas, however, the overall impact of this level of treatment to special status animals is projected to be adverse.

Impacts of mineral related activities including exploration and extraction of locatable, saleable and leasable minerals would be very similar to those discussed in alternative A. The only change would be within areas which would have been withdrawn from mineral entry and closed to materials sales and fluid minerals leasing in Alternative A. These include Wild and Scenic River segments and some ACECs. In Alternative B suitability recommendations for these special designations would be postponed pending further study and it is projected that fewer acres would eventually be designated as either Wild and Scenic River or ACEC. This would result in more area potentially being open to mineral related disturbance which would result in additional adverse impacts on special status species within these areas. Both short-term and long-term impacts are projected to be adverse.

A projected 74% increase in OHMV activity by the year 2018 is expected to result in a some increase in adverse impacts to a number special status species an habitats. In the short term, the bulk of OHMV activity and associated impacts are projected to occur within the Owyhee Front SRMA because of its close proximity to population centers. In the long term, even though 420,434 acres would be converted from "Open" to Limited IIA category within the southern half of the resource area, adverse impacts are still projected to increase throughout the resource area as major use areas along the Owyhee front become more and more congested, due to the lack of user constraints, and people seeking a higher quality experience begin to move into these less congested areas. Initially, allowing for use of historic trails area-wide and sand washes over more than half of the resource area, along with elimination of all seasonal use restrictions, would result in levels of habitat and population disturbance similar to those described for alternative A. Theoretically however, through monitoring, site specific activity planning most impacts should be mitigated or minimized over the long term. Special status species most likely to be adversely impacted, at least over the short term, include the western toad, western ground snake, long-nosed snake, long-billed curlew, burrowing owl, ferruginous hawk, several species of neotropical migrants and kit fox. In Alternative B, a plan would be developed which would assess the validity of all existing SRMAs and ACECs and the need for establishing any additional SRMAs and ACECs. If and when existing SRMAs and ACECs are released from SRMA designation they would, for the most part, be subject to increasing levels of OHMV activity, other forms of recreational use and a variety of other actions which would adversely impact some or all special status species in these areas. Since no specific SRMAs or ACECs or management actions were identified for deletion or addition, no specific impact assessment can be done.

As with SRMAs and ACECs, Alternative B prescribes only to study rivers and river segments for inclusion in the National Wild and Scenic Rivers System. No specific rivers or river segments were recommended for inclusion although specific actions were identified which would maintain continued multiple recreation uses and establish designated equestrian, foot and OHMV trail systems within river segments as they are designated. Special status species most likely to be adversely effected by the lack of protection provided by river designations as recommended in Alternative A include bald eagle, peregrine falcon, mountain quail, white pelican, several species of neotropical migrants and bats, California bighorn sheep, spotted frog and redband trout. Long-term impacts are projected to be adverse.

Upgrading or reconstructing facilities at seven recreation sites and construction of foot and equestrian trail systems would likely result in increased public use at and in the general vicinity of each of these sites. Impacts would be similar to those identified in Alternative A except that special restrictions on vehicle access and special recreation permitting associated with facilities and trails within areas identified as SRMAs in Alternative A may not apply. The more liberal initial OHMV designations would have an increased adverse impact within the vicinity of most or all developed recreational facilities, at least until monitoring, evaluation and sit specific planning has been completed. Initially, there could be an increase in physical habitat deterioration and disturbance or displacement of special status species in excess of that identified in Alternative A. However, over the long term, most adverse impacts should be eliminated through site specific monitoring, planning and mitigation.

Impacts of equestrian events and guiding and outfitting services would be similar to those identified in Alternative A. Short-term and long-term impacts are projected to be slightly adverse and projected to increase over the next 20 years, although monitoring, activity planning and mitigation should minimize adverse impacts.

As discussed in Alternative A, land tenure adjustments to consolidate public lands through State or private exchange can have either a beneficial or adverse impact on wildlife depending upon which parcels are involved. Since no specific land tenure adjustments were identified in Alternative B, no specific impact assessment can be made. However, since actions identified in Alternative A to acquire habitat for special status species were not included in Alternative B, the net effect to wildlife of implementing Alternative B could be adverse.

In Alternative B, land use authorizations (rights-of-ways, leases and permits) would continue to have a mostly adverse impact on special status species as habitat is dedicated to other uses. ROWs and easement acquisitions identified in Alternative B are specifically for motorized access, OHMV and other types of recreational access. These and most other types of land use authorizations are likely to result in long-term alteration or destruction of habitat for a variety of special status species. Even though most affect a relatively small area, the cumulative impact over 20 years could be substantial. Short-term and most long-term impacts are projected to be adverse.

Conclusion

Alternative B depends heavily upon activity planning, monitoring and evaluation to determine levels and types of allowable uses and to determine the need for any protective or limited use designations. With the exception of exclosure fencing and some vegetation treatments, it stresses mitigation to repair resource damage as opposed to restricted use to limit or prevent resource damage. This emphasis on activity planning, evaluation, monitoring and mitigation, although making it more difficult to assess the true impacts of Alternative B with any degree of accuracy, should result in the long term avoidance or resolution of most adverse impacts. With this in mind, large increases in vegetation treatment acreage; increased potential for loss of habitat to mineral exploration, mining, materials sales and fluid minerals

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leasing; expanding OHMV and other recreational activity; reduced emphasis on immediate implementation of special designations including ACECs, Wild and Scenic Rivers and SRMAs; and the lack of any specific actions to facilitate reintroduction of any special status species are all projected to have mostly adverse impacts on the majority of special status animal species while implementation of AMPs and associated grazing systems, implementation of recreation and various other activity plans, livestock exclosures, wildlife water developments and some vegetation treatments are all projected to have mostly positive impacts on many special status animal species.

Meeting The Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

This objective would be partially met. The development and implementation of AMPs and associated grazing systems on all allotments within ten years leading to a significant improvement in upland and stream riparian habitat; development and implementation of activity plans for the management of recreation, wildlife and wild horses; construction of riparian exclosures and wildlife waters and implementation of some vegetation treatments would all combine to improve habitat for many special status animal species over the long term. However, the projected treatment of more than 282,000 acres of woody vegetation; fewer initial, and possibly long term, restrictions on OHMV and other recreational activities; and the lack of immediate implementation of new special (protective) designations and potentially fewer and smaller special (protective) designations in the long term, are all expected to result in the loss and/or disturbance of many special status species habitats and/or populations and continued maintenance of others in unsatisfactory condition.

Wild Horse Management

Change Agents

OHMV activities, recreation use, mining activities, fencing, vegetation treatments, livestock water developments and livestock grazing.

Impact Analysis

In Alternative B it is projected that recreational uses within the Herd Management Areas (HMAs) would greatly increase. These recreational uses would include, but not be limited to, OHMV, equestrian (both causal and competitive) and commercial outfitting services. The existing Hemingway Butte and Rabbit Creek trailheads and their respective surroundings would continue to receive concentrated recreational uses. Further, these areas would continue to be managed and maintained with the understanding that concentrated OHMV and other multiple recreational uses would be ongoing for the next 20 years. Within the three HMAs, OHMV use would be limited to existing roads, jeep trails, motorcycle/ATV trails, historical established game, wild horse and livestock trails, and sand washes. Some designated trails could be identified for compatible recreation and commercial uses if monitoring does not identify or document harassment of wild horses.

[redacted]

Increased human contact, equestrian activities, motorized vehicles and noise would likely trigger an instinctive behavioral change. When threatened, a survival instinct normally occurs and the wild horses try to distance themselves from it. Wild horses may slowly adapt to some threats, but in Alternative B they would be overwhelmed by the increase in multiple recreational uses. Continued or prolonged threats within a given area would reduce or stop wild horse use of the area. Once the wild horses become displaced, living space is reduced, herds are concentrated over a lesser area, and available forage and dependable water is reduced. This would increase competition between wild horses, wildlife and livestock within a reduced habitat area. The appropriate management level (AML) would be reduced over the next 20 years to at or near the established minimum number of 118. The wild horses would commonly be found outside the designated HMA boundaries and have to be removed.

Areas of concentrated motorized recreational users would create areas of soil disturbance which would provide a niche for the establishment of noxious weeds within the HMAs.

The HMAs would remain open for exploration and development of minerals. Exploration and development of locatable minerals, fluid minerals and use of mineral materials could have an increasing detrimental impacts on wild horses as habitat is disturbed over the next 20 years, particularly within the Black Mountain and Hardtrigger HMAs. The extent of habitat impact would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations, increased public access associated with exploration, assessment, and mining roads and ways and indirect disturbance to wild horses within the vicinity of mines and exploration operations.

Internal fences within HMAs would not be beneficial to wild horses. Gates along fences, if not opened in a timely manner after authorized domestic livestock grazing periods, would impact winter range accessibility and free-roaming behavior. If habitat or riparian exclosures or fences are constructed, the projects would be designed to not impact water availability and the free-roaming behavior of the wild horses.

Vegetation treatments are projected in the three HMAs and would have short-term impacts on the wild horses. Wild horses would not be allowed on treatment areas for two grazing seasons. After that period the wild horses may or may not benefit from the increased forage, depending on the degree of previously stated impacts.

Water developments could increase forage competition with livestock. Development of livestock water projects are projected to result in deterioration of habitat conditions for wild horses at and near the development.

Grazing systems could modify wild horse distribution and free-roaming behavior. Grazing systems and scheduled closing of gates to control domestic livestock movement confines horses to particular allotments or pastures over the course of the grazing season. The movement of livestock by the permittees has at times resulted in displacement of wild horses. Over the next 20 years only a slight increase in preference is projected (see Table LVST-B) from April 1 through October 31 within the HMAs. Vegetation treatments are identified in all three HMAs and would help provide forage. However, combined with the livestock numbers and wild horses becoming concentrated by previous stated impacts, increased competition for forage would occur. This could result in unacceptable levels of utilization on key forage species and an overall decline in habitat conditions. Drought conditions could compound this situation.

Conclusion

Overall, it is projected that the wild horses would be adversely affected. The wild horses may slowly adapt to the increased recreational uses, but without adequate living space their tolerance threshold would be exceeded. The wild horses would be concentrated into smaller use areas, and increased competition for forage and water between consumptive species would occur. The wild horses may be forced outside of identified HMAs and have to be removed. The appropriate management level (AML) would be reduced over the next 20 years to near or at the established minimum.

Meeting the Objective

Objective WHRS1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Area (HMAs) at appropriate management level (AML) with a thriving natural ecological balance.

In Alternative B, the objective for wild horses would not be fully met. The wild and free-roaming behavior of the wild horses would be adversely affected by reduced living space within identified HMAs. Projected impacts on specific wild horse needs are shown below.

Components	Baseline	Short-Term	Long-Term
Forage Allocation	2329	Based on AML	Based on AML
Viability Level	118	118	118
Estimated Herd Size	178	AML	Unknown
General Health	0	0	-

Free Roaming Opportunity

Allot #	Pasture Name	#	Baseline	Short-term	Long-term
0521	Barrel Spring	4	0	0	-
0521	Seeding	2	0	-	-
0521	Bridge Creek	3	0	0	0
0522	Rats Nest	1	+	+	0
0556	Shares Basin	1	0	0	-
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	0	0	-
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	-	-
0508	Wilson	1	0	0	-
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	-	-	-
0508	Whiskey Hill	4	N/A	N/A	N/A
0508	Alkali	5	N/A	N/A	N/A
0651	North Rabbit	1	0	0	-
0651	Little Kane	2	0	0	-
0651	State	4	0	0	0
0517	West Rabbit (N)1	-	-	-	
0517	West Rabbit (S)	2	-	-	-
0517	Kane Spring	3	0	0	-
0517	Moores Creek	6	-	0	0
0517	South Rabbit	5	0	0-	-
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = Not Within HMA

[redacted]

Water Availability for Wild Horses in HMAs on a Year Long Basis

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	-	-
0521	Seeding	2	0	-	-
0521	Bridge Creek	3	-	-	-
0522	Rats Nest	1	0	0	0
0556	Shares Basin	1	0	0	-
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	0	0	-
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	-	-
0508	Wilson	1	0	-	-
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	0	0	0
0508	Whiskey Hill	4	N/A	N/A	N/A
0508	Alkali	5	N/A	N/A	N/A
0651	North Rabbit	1	-	-	-
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	-	-
0517	West Rabbit (S)	2	-	-	-
0517	Kane Spring	3	0	0	-
0517	Moores Creek	6	0	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = Not Within HMA

Public Interaction/Contact with Wild Horses Resulting in Disturbance

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	-
0521	Seeding	2	0	0	-
0521	Bridge Creek	3	0	0	0
0522	Rats Nest	1	-	-	-
0556	Shares Basin	1	0	-	-
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	-	-	-
0516	Hardtrigger	4	0	0	-
0516	Piute	5	0	0	0
0516	Hemingway	1	-	-	-
0508	Wilson	1	-	-	-
0508	Soldiers Cap	2	0	-	-
0508	Salmon Butte	3	0	0	-
0508	Whiskey Hill	4	N/A	N/A	N/A
0508	Alkali	5	N/A	N/A	N/A
0651	North Rabbit	1	-	-	-
0651	Little Kane	2	0	-	-
0651	State	4	0	0	-
0517	West Rabbit (N)	1	-	-	-
0517	West Rabbit (S)	2	-	-	-
0517	Kane Spring	3	+	0	-
0517	Moores Creek	6	+	0	0
0517	South Rabbit	5	+	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = Not Within HMA

Livestock Grazing Management

Change Agents

Livestock grazing systems, vegetation treatments, range improvements, interim management policy for wilderness study areas, national river designations, ACEC designations and mining activities.

Impact Analysis

Active preference is currently 135,116 AUMs with a average actual use (1988-1997) of 96,676 AUMs. Alternative B would result in a 5-year preference of 135,116 AUMs and a projected 20-year preference of 150,145 AUMs. See Table LVST-B for forage allocations by allotment.

Implementation and maintenance of intensive grazing systems and the extensive acreages proposed to be burned and/or seeded should reduce the need for reductions in livestock use. However, the proposed season-of-use and grazing systems, would continue to allow livestock grazing in riparian ecosystems during the hot summer months. Studies based upon utilization, climate and actual use would be used to balance forage production with upland livestock use. See Table LVST-B for grazing systems by allotment.

Vegetation treatments (prescribed burning and prescribed burning and seeding) would result in a short-term loss of 4,377 AUMs during prescribed burn management because of rest from livestock grazing for three consecutive growing seasons; one growing season before the burn (to insure sufficient fuel to carry a fire) and two growing seasons after the burn (to enhance vegetation establishment). The long-term impacts would result in a potential livestock forage increase of 25,075 AUMs as a result of burning, seeding and juniper harvesting. Monitoring data would be essential to indicate if the additional forage was available on a permanent basis. See Table LVST-3 for a summary of potential vegetation treatments.

	Vegetation Treatments			
	Prescribed Burn	Burn and Seed	Juniper Harvest	Total
Acres	356,723	83,880	18,090	458,693
Short-term reductions (AUMs)	3,567	629	181	4,377
Long-term production (AUMs)	11,890	12,582	603	25,075

Range improvement projects (water developments and fences) needed to implement allotment grazing systems and manage livestock distribution would be designed to decrease the amount of acreage with unsatisfactory rangeland conditions and to meet other resource objectives. New fences would be designed and constructed to meet Lower Snake River District Fence Policy standards for the wildlife species present to minimize barriers to big game movement. See RISP-1 and Figure WLDF-1. Cattleguards and other facilities would be constructed as necessary where new projects impede recreation movement. See Table LVST-3 for a summary of potential range improvement projects for Alternative B.

Interim management policy for wilderness study areas would restrict rangeland project developments. Rangeland developments may be constructed within WSAs but only if carefully designed to maintain or enhance the wilderness resources.

National river designations could result in livestock being removed from designated river channels. This could result in a change in the affected allotment's season-of-use but there are no projected reductions in active preference.

Retention of existing ACEC designations under this Alternative would not result in any change in livestock grazing preference. Within the Owyhee River Bighorn Sheep Habitat Area ACEC no livestock water developments would be constructed. No changes in existing management are prescribed for this ACEC. See Table ACEC-B for ACEC management actions.

The Stone Cabin Mine would reduce stocking rates on three allotments, Jump Creek (0570), Flint Creek (0503) and Silver City ((0569), by 112 AUMs for the life of the mine which is projected to be 30 years. Reclamation of all but about 105 acres would result in all but 15 AUMs being returned to active preference.

Conclusion

Implementation of Alternative B with the associated grazing management actions would have few short-term impacts on current livestock management. Over the long term, forage demands would be met with the vegetation treatments, range improvements and grazing systems identified. Some suspended preference (15,029 AUMs) would be returned to active preference. In 20 years improvement is projected with 22% of the rangelands achieving a late seral stage. Continued spring grazing in the Snake River geographic reference area would not allow for much improvement in upland range condition as 20 years is not long enough to project much change in this area. Riparian ecosystems throughout the resource area available to livestock grazing during the hot summer months would continue to remain in less than satisfactory condition. Water and riparian objectives would be met on 75% and fish objectives would be met on 60% of the stream miles. Livestock use (active preference) would be 150,145 AUMs at the end of 20 years, a 11% increase from current use.

Meeting the Objectives

Objective LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

This objective would not be met in Alternative B because of unresolved resource concerns that were identified.

Locatable Minerals

Change Agents

Corridors along nationally designated rivers, certain recreational areas and ACECs; land tenure adjustments.

Impact Analysis

Withdrawal actions taken by Congress or the Secretary of the Interior in Alternative B would remove 95,687 acres (about 7%) of public lands in the resource area from location and development under the general mining laws, subject to valid existing rights of preexisting mining claims. Validity exams would be conducted on these claims to determine whether valid existing rights exist. See Table LOCM-B for specific closures.

Managing lands such as the Carson Mining District primarily for mineral development could result in adverse impacts on riparian areas, water quality, wildlife, cultural, and wetland resources through the construction of roads, drill pads, mine pits, dumps, heap leach pads and related facilities. Requiring industry to use best management practices during all phases of exploration and mining would minimize damage to other resource values. Mitigating measures would stabilize areas disturbed during mining and prevent excess sediment deposition in wetlands and live streams. Proper design of facilities would reduce or eliminate acid mine drainage and wildlife kills. Cultural resources could be salvaged prior to or during construction to mitigate adverse impacts on historic resources. Performance bonds would be required of all operations conducted under a Plan of Operations as defined by 43 CFR 3809.1-4. Inspections of all exploration operations using mechanized equipment and of all mining operations would occur on a frequent basis to insure an adequate level of mitigation and protection.

Land tenure adjustments would remove a small amount of land from location under the general mining laws. Mineral reports would be prepared on all lands involved in the sales and exchanges and mining claims on public lands would require a validity examination to determine any valid existing rights.

Conclusion

The overall impact of Alternative B on locatable mineral management would be favorable to mineral resource development, but could have moderate to severe short-term impacts on other surface resources.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Physical access to the resource is provided for by the mining laws. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Two main criteria were considered when determining if the objectives were being met: 1) Developmental restrictions - if maximum bonding, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 2) Potential likelihood of development - is the resource present in economically minable amounts.

Objective LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

The objective would be met in Alternative B.

Availability of Lands for Locatable Mineral Activity Relative to Resource Potential - Alternative B

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	25,300	1,347,871	1,373,171
Withdrawn	40	95,647	95,687
Split Estate			
Open	2,135	128,856	130,991
Withdrawn	40	2,410	2,450

Fluid Minerals

Change Agents

Mineral leasing closures and restrictions in corridors along nationally designated rivers, certain recreational areas and ACECs; Riparian and wetland management, water quality protection, recreation use, wildlife habitat and land tenure adjustments.

Impact Analysis

In Alternative B 101,415 acres (7%) of public lands in the resource area would be closed to oil and gas and geothermal leasing. Of this acreage 65,131 acres are currently closed. All but 2,926 acres of split-estate lands (oil and gas) and 3,342 acres (geothermal), where the surface is privately owned, would be open to leasing. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for fluid mineral leasing. Those WSA's are not specifically listed in Table FLUM-B, however considerable areas shown in the table overlap or are contained within the WSA's.

Restriction of fluid mineral operations through seasonal or yearlong no surface occupancy would impact 476,654 acres (32%) of public lands in the resource area. Seasonal restrictions on operations would not seriously impede any future leasing activity and should provide adequate protection to wildlife resources. About 111,000 acres are prescribed for yearlong no surface occupancy restrictions, which could have an adverse impact on leasing since there would be no practical way to explore or develop some of these lands. See Table FLUM-B for specific closures and restrictions.

Modifications to any future exploration or drilling program would usually be made to protect riparian and wetland areas and water quality without seriously impeding fluid mineral development. Protection of these resources would not likely have any serious impact on fluid mineral operations in the foreseeable future.

Recreation activities would generally be incompatible with fluid mineral exploration and development. Noise, dust and heavy machinery associated with drilling operations would adversely impact recreational opportunities on the public lands. Future drilling sites may have to be fenced off from nearby established recreation areas, such as campgrounds, OHV parks or trails for safety purposes. Access routes into fluid mineral development sites may have to be restricted or relocated to not interfere with certain recreation activities. Established recreation sites may require a buffer of public lands where development activities would be restricted to reduce disturbance to recreationists.

Land tenure adjustments would cause some minor shifts in the amount of land available for fluid mineral leasing.

Conclusion

The outlook for an active fluid minerals leasing and exploration program is poor. There would always be some interest in fluid minerals in southwest Idaho, particularly in low-temperature geothermal resources, but until energy prices are much higher then present or until new technology becomes available, no leasing activity is likely to occur. Large scale no surface occupancy restrictions may have a small adverse impact on any leasing interest in the southern part of the Resource Area. Overall, the impact of Alternative B on fluid minerals development would be favorable.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met:

1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present.

2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

The objective would be met in Alternative B.

Availability of Lands for Fluid Mineral (Oil and Gas) Activity Relative to Resource Potential - Alternative B

Management Constraint	Low Potential	Zero Potential	Total
Public Lands			
Open	798,619	92,170	890,789
Open-Seasonal Occupancy	218,000	147,000	365,000
Open-No Surface Occupancy	103,659	10,000	111,654
Closed	101,375	40	101,415
Split Estate			
Open	65,103	65,412	130,515
Closed	2,926	0	2,926

Availability of Lands for Fluid Mineral (Geothermal) Activity Relative to Resource Potential - Alternative B

Management Constraint	High Potential	Low Potential	Total
Public Lands			
Open	82,693	808,096	890,789
Open-Seasonal Occupancy	14,100	350,900	365,000
Open-No Surface Occupancy	340	111,314	111,654
Closed	72,067	29,348	101,415
Split Estate			
Open	840	129,259	130,099
Closed	3,122	220	3,342

Mineral Materials

Change Agents

Population growth; mineral withdrawals for wilderness areas, certain wildlife areas, recreation sites, natural areas and ACECs; land tenure adjustments.

Impact Analysis

In Alternative B, 3,220 acres (7%) of public lands classified as having high potential for sand and gravel would be closed to disposal. This small area is not likely to seriously impede development of the area's mineral material resources. See Table MMAT-B for specific closures. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for mineral material disposal. Those WSA's are not specifically listed in Table MMAT-B, however considerable areas shown in the table overlap or are contained within the WSA's.

Protecting riparian areas and wetlands would require some restrictions on the development of mineral material sites, particularly along stream channels. Future material sites would likely be located along bench and terrace gravel deposits and alluvial fans away from any live water. Access roads into material sites may need to be relocated or engineered specifically to protect wetlands and riparian areas.

Land tenure adjustments would remove a small amount of public land from availability as material sources.

Conclusion

The overall impact of Alternative B on mineral materials management in the resource area is generally favorable for the development of these resources.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

The objective would be met in Alternative B.

Availability of Lands for Mineral Materials Activity Relative to Resource Potential - Alternative B

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	40,080	1,214,267	1,254,347
Closed	3,220	211,291	214,511
Split Estate			
Open	1,370	131,029	132,399
Closed	20	1,022	1,042

Recreation

Change Agents

Recreation use, OHMV designations, VRM classifications, special designations, recreation facilities, fencing, water developments, acquisition, vegetation treatments, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Changes in the Availability of Recreation Opportunity Settings:

Alternative B would continue the existing array of recreation opportunity spectrum (ROS) settings available throughout the resource area, but would result in a shift in the amount of acreage available in each classification as shown below. ROS classifications are an expression of the type of experiences one can achieve while in an area with a combination of social, physical, and managerial settings. Settings are defined in terms of their remoteness, size, evidence of human use, social environment (amount of visitation or use), and management presence (facilities as well as personnel). See Table RECT-3 for details on each of the settings. Semi-primitive motorized settings would remain the predominate opportunity class covering about 54% of the resource area (about a 10% increase over that currently available). In the northern portion of the resource area (the Snake River and Jordan Creek geographic reference areas), roaded natural, rural, and urban settings would accompany semi-primitive motorized settings. Some semi-primitive nonmotorized settings would exist in remote mountainous areas. To the south (Owyhee River geographic reference area), semi-primitive motorized settings would continue to isolate numerous pockets of semi-primitive nonmotorized settings across the open plateau areas. However, the availability of semi-primitive nonmotorized and primitive settings encompassing the Owyhee Canyonlands and the North Fork Owyhee River Backcountry SRMAs could be diminished. Over the long term, primitive settings could remain only in the most rugged canyonlands and rock outcrop areas. Also, in the south, roaded natural settings with some rural acreage would only be associated with the Owyhee Uplands National Back Country Byway and several connecting roadways.

ROS Classifications Availability In Alternative B (See Map RECT-1)

ROS Class	Total Acres in 1998	Percent of Resource Area in 1998	Percent of Resource Area in 2018
Primitive	234,983	13%	5%
Semi-Primitive Nonmotorized	386,150	22%	18%
Semi-Primitive Motorized	794,010	44%	54%
Roaded Natural	177,080	10%	12%
Rural/Urban	187,269	11%	11%
Total*	1,779,492	100%	100%

* All lands: BLM, State and private.

Management actions in Alternative B are projected to cause changes in ROS class acreages primarily within primitive and semi-primitive motorized and nonmotorized settings. Changes in classification could result from 1) new trail development allowed under off-highway motorized vehicle designations; 2) increased administrative access to new range improvements; 3) vegetation treatments; or 4) development of new roads or upgrading existing vehicle routes for mineral exploration and development.

Off-highway motorized vehicle (OHMV) designations prescribed in Alternative B would provide little restriction to motorized public use throughout the resource area. Long-term management of recreation vehicle use (Limited - Level IA, Level IB and Level IIA designations) could leave all existing roads, jeep trails, motorcycle/ATV trails, historically established (livestock and game) trails and sand washes available for OHMV use; prohibiting only unrestricted cross-country travel. (See Map RECT-1B.) Use of livestock and game trails could eventually lead to an increase in the availability of motorcycle/ATV trails as more remote livestock and game trails are developed by these vehicles. This would increase the availability of semi-primitive motorized experiences and reduce opportunities for primitive and semi-primitive nonmotorized experiences. The extent of the change in OHMV recreational experiences would be dependent upon the outcome of wilderness designation for 288,952 acres of wilderness study areas (WSAs) located within the resource area.

While wilderness study lands remain under the BLM Wilderness Interim Management Policy (Limited - Level 4-IMP), little change in the availability of primitive or semi-primitive nonmotorized settings is projected in the Owyhee River geographic reference area. Wilderness designation would perpetuate these settings. However, OHMV activity under the Limited - Level IA designation that would occur in the absence of wilderness designation could result in the generation of new semi-primitive motorized travel corridors along what are now livestock and game trails that penetrate primitive or semi-primitive nonmotorized settings, thus converting these settings to semi-primitive motorized settings over the long term. Throughout the resource area, administrative routes to new range improvements are projected to be unconstructed jeep trails which could reduce the amount of primitive and semi-primitive nonmotorized settings available. Mineral development, such as that in the vicinity of Silver City, would change semi-primitive motorized settings to roaded natural settings with the construction of maintained gravel roadways. Recreational development would also contribute to increased roaded natural settings.

Should wilderness suitability recommendations as presented in the Owyhee RMP be accepted by Congress, 123,800 acres of public lands would be released from the IMP and made available for other multiple uses, including vegetation treatments. These treatments could substantially affect the naturalness of the Juniper Mountain area, converting primitive settings to mostly semi-primitive motorized settings. In the North Fork Owyhee River Backcountry SRMA/WSA, vegetation treatments could cause some reduction in naturalness in nonsuitable areas resulting in a shift toward semi-primitive nonmotorized settings. If no wilderness designation were to occur, additional losses in naturalness in the North Fork area are projected as more lands become available for vegetation treatments. The semi-primitive nonmotorized settings of the plateau lands in the Owyhee Canyonlands region (including nonsuitable WSA lands) could allow prescribed fire or wildfire rehabilitation projects (drill seeding) and energy and mineral exploration and development that affect the quality of semi-primitive nonmotorized experiences by reducing naturalness, but may not cause a change in ROS class. Some acreage of primitive settings around upper Nickel Creek would also shift to semi-primitive motorized or nonmotorized settings as a result of woodland treatment projects.

Impacts on Recreational Opportunities in Special Recreation Designations

Alternative B prescribes the reevaluation of all existing special recreation management areas (SRMAs) to determine whether the characteristics which prompted their special management attention continue to exist. Currently there are ten (10) special recreation management area (SRMA) designations totalling 313,258 acres in the resource area as shown below. Alternative B also prescribes the reevaluation of all river segments in the resource area to determine their suitability for national river designation. Previous river eligibility inventories documented in this RMP have found 223 miles of rivers and streams as eligible for further study to determine their suitability as national river designations. A National Park Service study in 1979 found the main stem Owyhee River and its East Fork tributary as suitable for a National Wild River designation. This designation recommendation has been forwarded to Congress for consideration.

Recreation Management Area Designations Subject to Review In Alternative B (See Map RECT-2B)

Recreation Management Area Name	Acres	
Owyhee ERMA	1,006,733	
Blackstock SRMA	6,149	
Jump Creek SRMA	8,667	
North Fork Owyhee SRMA	56,593	
Owyhee Front SRMA	181,590	
Owyhee Canyonlands SRMA	36,839	(5,627 additional in BRA)
Silver City SRMA	2,166	
Oregon Trail SRMA	7,305	
Snake River Birds of Prey SRMA	7,590	
Upper and Lower Deep Creek SRMA	5,884	(5,918 additional in BRA)
North Fork Canyon SRMA	475	
Total SRMAs for Owyhee Resource Area	313,258	

The special designations that currently exist were established to ensure long-term protection of recreational opportunities dependent on predominately primitive and semi-primitive motorized and nonmotorized settings and, in some areas, roaded natural settings. In Alternative B, management actions prescribed for OHMV management and visual resource management (VRM) would provide continued protection for SRMAs intended to retain semi-primitive motorized and roaded natural opportunities (those of the Snake River and Jordan Creek GRAs). Prescribed OHMV and VRM classifications for SRMAs in the Owyhee River GRA could compromise the protection of primitive and semi-primitive nonmotorized opportunities by allowing for a potential increase in OHMV trail development. The primitive and semi-primitive nonmotorized settings most likely to be affected are those of the plateau areas around the Owyhee Canyonlands and Deep Creek and less rugged portions of the upper North Fork Owyhee River. Plateau trail development is projected to eventually lead to the penetration of the canyons of the Owyhee Canyonlands SRMA and Deep Creek SRMA by motorcycles and ATVs under the Limited - Level IA designation and VRM Class II classification prescribed in Alternative B. (Some unauthorized access by these vehicles is already occurring.) In the case of the North Fork Owyhee Backcountry SRMA, an increase in widely dispersed "dead end" vehicle trails is projected although trail penetration would be somewhat limited by ragged rock outcrop terrain in many places. There is little impact projected in the North Fork Canyon SRMA because of its topographic barriers.

Livestock management actions in Alternative B would allow increasing livestock numbers 11% overall which would notably increase the presence and evidence of livestock which could be offensive to some recreational users. Such an occurrence would be more tolerable in SRMAs where the intent is to retain semi-primitive and roaded natural settings (Snake River and Jordan Creek GRAs), but less tolerable in areas intended for the preservation of primitive and semi-primitive nonmotorized settings (Owyhee River GRA and some isolated areas of the Snake River GRA).

National river designation for 66 miles of river canyon on the Owyhee-East Fork Owyhee River in the Owyhee Canyonlands SRMA would include withdrawal of the affected lands from mineral entry. This would preclude any potential irretrievable loss of outstanding primitive recreational values through scenic degradation.

In summary, management actions in Alternative B have the potential to significantly degrade the characteristics for which the SRMAs in the Owyhee River GRA were given special management attention: characteristics which currently are judged to be of national significance. The SRMAs in the Snake River and Jordan Creek GRAs would have some degradation of their recreation resource values from OHMV designations.

Impacts on the Quality of Recreational Experiences

Management actions prescribed in Alternative B would not only result in a change in the availability of the various recreational opportunity settings in the resource area, but would also affect the overall quality of recreational experiences that would be obtainable in those settings.

Primitive experiences require a sense of remoteness, a vastness (size), and little or no evidence of human use. Semi-primitive nonmotorized experiences also require naturalness and solitude but to a somewhat lesser degree. Currently, recreational users seek out the canyonlands and some adjoining plateau and rock outcrop landscapes of the Owyhee River system (Owyhee River GRA) for primitive and semi-primitive nonmotorized recreation experiences. In Alternative B, these lands are prescribed for mostly Class II visual resource management (VRM) where management actions would be allowed if they cause only a slight adverse effect upon the scenic quality of the landscape. No recreation management actions are prescribed in Alternative B within VRM Class II areas which would help retain or enhance primitive or semi-primitive nonmotorized values. Alternative B, through its OHMV designations could eliminate or degrade the overall quality of primitive and semi-primitive nonmotorized recreation values by providing for increased semi-primitive motorized opportunities without necessarily degrading scenic quality to a significant degree. OHMV trail development for recreation use, or in some cases access to new rangeland facilities, could potentially cause 50% of these settings to be replaced by semi-primitive settings as OHMV trails penetrate natural areas. An 11% increase in the presence and evidence of livestock would foul campsites as well as adversely affect the hiking experience.

In the semi-primitive motorized settings of the Owyhee Front (Snake River GRA), equestrians seek out areas more or less isolated from OHMV activity to enjoy horseback riding experiences (mostly day-use currently). A few areas of semi-primitive nonmotorized settings and one remnant primitive area (upper East Fork Sinker Creek area) are also used by equestrians on a regular basis. The OHMV designations in Alternative B for the Owyhee Front (Limited - Level IB and IIA) would make such isolated areas exceedingly more scarce as more animal trails become OHMV trails.

In areas historically managed for semi-primitive motorized or roaded natural settings, prescribed OHMV designations and VRM classifications would continue or enhance existing experiences, but could lower the quality of the experience for some visitors in certain areas.

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In Alternative B, no lands would be "Open" for cross-country travel. About one-third of the resource area is currently under this designation. All OHMV use in Alternative B would remain on existing roads, jeep trails, motorcycle/ATV trails, historic (livestock and game) trails and sand washes. Under current management (see Alternative A), only the Owyhee Front (Snake River GRA) offers an OHMV experience similar to this, except livestock and game trails are not authorized for use. With implementation of Alternative B, it is projected that there would be a substantial increase in the number of new motorcycle/ATV trails generated from the conversion of animal trails to vehicle trails. This would occur because many vehicle trails on the Owyhee Front are deteriorating, which encourages trail riders to use the newer trails. Increasing levels of trail use, continued trail deterioration, and a substantial reduction in the overall visual quality of the Owyhee Front lands would eventually degrade the recreational quality of these lands and cause some to seek other lands for quality experiences. The overall effect of the resource area OHMV designation would be a gradual shift in OHMV use to the south into the higher elevation areas. The Owyhee Mountain Range is currently experiencing the effects of this shift as more and more motorcycle/ATV trails are appearing. The Silver City area has been particularly affected because of a resident summer home population, the notoriety of the area and its accessibility.

As OHMV use increases to the south, more and more areas would develop motorcycle/ATV trails that would network with the existing dirt road/jeep trail system. This increased network would enhance the quality of the OHMV experience by increasing the availability and diversity of riding opportunities. This increased network of dirt road and jeep and motorcycle/ATV trails is eventually projected to reach the Owyhee Canyonlands SRMA, including its south and east rimrock areas.

Other recreation management actions in Alternative B pertaining to development and maintenance of recreation facilities (campgrounds, picnic areas, OHMV trailheads) in semi-primitive motorized and roaded natural settings would provide increased choices in access opportunities without substantially affecting the natural or aesthetic character of the landscape, but would contribute to increased site-specific recreation use. The affected semi-primitive and roaded natural settings would generally be managed as VRM Class II and III areas. Some modifications of the natural landscape would be permissible within these ROS and VRM classifications, particularly if they enhance recreational experiences.

Projected increases in visitor use would not adversely affect the quality of recreational experiences through the year 2018 by causing a sense of crowding or by contributing to the deterioration of the natural landscape, except in the semi-primitive/roaded natural settings of the Owyhee Front and potentially in the primitive settings of the Owyhee River GRA. Rapidly increasing use of the Owyhee Front would limit BLM's ability to reduce or prevent resource deterioration of undeveloped sites on an overall basis. Localized vandalism, unauthorized OHMV use and maintenance of OHMV trails would likely remain the principal cause of resource deterioration and facility damage at already developed sites such as Jump Creek and the off-highway vehicle trailheads and their surrounding areas. Alternative B would allow for additional developments but would not give direction as to specific locations or purposes for sites in the Snake River GRA (Owyhee Front). In the remainder of the resource area, existing developed sites and development of several small additional sites would be adequate to meet recreational demand through the year 2018 The projected reduction (50%) in available primitive and semi-primitive nonmotorized settings could generate localized concentration (crowding) situations for these user groups over the long term and their displacement to other areas of southwest Idaho.

Alternative B would result in additional range improvement projects at a rate lower than that experienced between 1981 and 1991. New projects are projected to include emphasis on pasture fences and, to a lesser degree, wildlife and riparian exclosures. One of the recognized qualities of the resource area is its opportunity for a free-roaming experience. In Alternative B, the OHMV user of established jeep and motorcycle/ATV trails would be subjected to a further increase in pasture fence encounters and to some riparian exclosure fences at stream crossings. The pedestrian user would also find some additional fences hindering access along stream channels for nonmotorized activities. Cattleguards would partially mitigate impacts on semi-primitive motorized recreation as well as assure exclosure integrity. Therefore, rangeland facilities are projected to have only a slight to moderate adverse impact on the free-roaming experience found in the semi-primitive settings of the Owyhee Resource Area.

A number of fence gates define legal divisions between federal and private property where the public has no right of passage. Many of these gates can be locked, particularly during the hunting season. Land actions (acquisitions of easements or fee title, and exchanges) in Alternative B would allow for some public access where locked gates or signing currently prevents access to large blocks of public land.

Impact analysis for riparian resources in Alternative B indicates that the riparian objective would be met on 75% of the riparian miles. Prescribed grazing systems and minimal exclusion of livestock from riparian areas would not produce overall terrestrial wildlife habitat conditions that could help reduce wildlife population fluctuations derived from cyclic climatic conditions and encourage population increases. Only small long-term population changes are projected to occur in aquatic (fishery) resources. Consequently, no notable change in hunting or fishing opportunities is projected in Alternative B because of the relatively small improvement in riparian conditions. Alternative B also identifies treatment of 458,693 acres (one-third of the resource area) with prescribed burning, seeding and woodcuts to control the spread of seral juniper or to reduce sagebrush competition with grass species on sagebrush-bunchgrass ecological sites. The level of vegetation treatment and livestock use could adversely affect mule deer and sage grouse populations over the long term, yet allow an increase in antelope populations. Therefore, upland game and mule deer hunting opportunities are projected to decline as antelope hunting opportunities increase. In summary, Alternative B would generally be somewhat detrimental to overall hunting opportunities over the long term while fishing opportunities would remain about the same.

The woodland treatments (totaling 110,410 acres) would degrade the scenic quality of the landscape and, in the case of woodcutting, the landscape's natural character. Adverse visual impacts could last as long as 50 years depending upon the age class of seral juniper stands being treated (see visual impact analysis). During this period, the quality of recreational experiences would be diminished. Woodland treatments would be concentrated in the Jordan Creek GRA and northern portion of the Owyhee River GRA, mostly within VRM Class III and IV areas. Numerous treatments in this region through the year 2018 would have a cumulative effect on the quality of recreational experiences of all types within predominately primitive and semi-primitive motorized and nonmotorized settings and, to some extent, roaded natural settings. Woodland treatments could reduce the amount of acreage in primitive settings within the resource area from 13% to 10% if nonsuitable WSA lands are released from Wilderness IMP. In semi-primitive motorized settings, reduced natural and scenic character may be tolerated more readily by hunters (a primary user group) in light of an improved antelope population. Those using roaded natural settings along such roads as the Owyhee Uplands National Back Country Byway would have their recreation experiences most affected because sight-seeing and pleasure driving activities on these roads are highly dependent on scenery. In time (25 to 50 years), visual effects of treatments would be largely gone and the quality of the recreation experiences would be restored or enhanced. Reburns of treated areas are projected to occur on a regular basis. Reburns would have minimal visual impact after several growing season because larger trees would generally not be involved, thereby having little long-term effect on recreational experiences. For prescribed burn projects affecting mostly semi-primitive motorized and nonmotorized settings found on sagebrush-grassland ecological sites outside of the woodland region (about 349,000 acres), the burn and possible subsequent drill seeding would not affect visual quality over the long term, but would somewhat reduce naturalness to the detriment of semi-primitive nonmotorized experiences.

Concerns for vegetation and watershed protection in Alternative B could have a long-term effect on the availability of OHMV trails in select areas of the roaded natural and semi-primitive motorized settings of the Owyhee Front SRMA. It is projected that a number of miles of trail would eventually have to be closed temporarily or permanently to stabilize or reverse erosion caused by off-highway vehicle use. To mitigate the adverse impacts on OHMV recreation from trail closures, new trails could be considered in less sensitive areas.

Alternative B would allow for locatable and fluid mineral exploration and development activities. Most locatable mineral activities affecting recreation use are projected to be concentrated in the Silver City area and, to a lesser amount, the Owyhee Front. Mineral development in the DeLamar and Florida Mountain area would result in a change in ROS class from semi-primitive motorized to roaded natural and would reduce the quality of surrounding semi-primitive experiences. Mining activities would preclude public use in much of the roaded natural setting for safety reasons during the time of mine operation. The quality of semi-primitive recreation experiences on lands immediately surrounding the mine operation would be reduced by visual and audio intrusions. For more detail on the DeLamar and Florida Mountain mineral activities, refer to the Stone Cabin Mine EIS. Additional mine sites are projected to be developed in the Silver City area resulting in a cumulative impact on recreational experiences ranging from exclusion, restricted access and degradation of natural and scenic qualities. Other mineral activities such as exploration for oil and gas could also result in new roaded natural corridors and cause localized reductions in the quality of recreational experiences in the semi-primitive motorized settings of the Owyhee Front and primitive or semi-primitive nonmotorized settings in the Owyhee Canyonlands region.

To protect the high quality of primitive recreational experiences in the suitable wild river canyon of the Owyhee-East Fork Owyhee River canyons from the effects of potential mineral exploration and development, Alternative B recommends withdrawal of the affected lands from mineral entry. The remaining eligible river segments would not receive withdrawal protection.

Should Congress not accept the national river or wilderness recommendations, the absence of such designations for lands adjoining the Paiute (El Paso) Gas Pipeline crossing of the East Fork Owyhee River could result in development of a high voltage powerline utility corridor in the Owyhee Canyonlands region. Such development would result in new roaded corridors and would eliminate or severely diminish primitive and semi-primitive nonmotorized recreation opportunities on surrounding canyon and plateau lands of the WSA complex. Development would also reduce the quality of semi-primitive motorized recreation opportunities on surrounding plateau lands (see the Owyhee Canyonlands Wilderness EIS for details).

Conclusion

Alternative B would provide for intensive management of recreation resources and recreation use on 313,258 acres in ten (10) special recreation management areas (SRMAs). Prescribed OHMV designations and VRM classifications could reduce recreation values in certain areas. One such area would include the National Park Service's recommendation for congressional designation of 66 miles of river canyon along the Owyhee and East Fork Owyhee River as a National Wild River. Alternative B would place restrictions on off-highway motorized vehicle (OHMV) use to protect or enhance OHMV opportunities in the resource area as a whole, yet the OHMV designations could eventually eliminate 50% of the existing primitive and semi-primitive nonmotorized opportunities (Owyhee River GRA), as well as cause some loss of quality in semi-primitive motorized experiences along the Owyhee Front (Snake River GRA).

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The majority of the resource area (54%) would remain or change to semi-primitive motorized settings. Woodland treatment projects would eliminate some primitive settings (the amount depending upon wilderness designation) and moderately to severely reduce the quality of semi-primitive recreational experiences until affected lands have recovered (25 to 50 years). In the long term, vegetation treatment projects could improve the quality of semi-primitive recreational experiences except for overall hunting and fishing opportunities. Overall hunting opportunities could somewhat decline over the long term. The continued development of fences could slightly to moderately reduce the quality of the free-roaming experience found in semi-primitive settings.

Burning and seeding projects on sagebrush plateau lands could reduce the quality of semi-primitive nonmotorized experiences as well as eliminate some primitive settings (the amount depending upon wilderness designation). There is also the potential for reductions in the quality of primitive and semi-primitive recreational experiences from energy exploration and development should wilderness or wild river designation not occur along the East Fork Owyhee River. Within the Snake River and Jordan Creek GRAs, mineral activities would severely reduce the quality of semi-primitive recreational experiences and result in the shift of some semi-primitive motorized recreation settings to roaded natural settings.

Meeting the Objectives

Objective RECT 1: Provide for off-highway motorized vehicle (OHMV) use on public lands while protecting sensitive resource values.

Off-highway motorized vehicle designations in Alternative B would not meet the OHMV objective because, while providing for improved OHMV opportunities throughout the resource area, they would cause a 50% loss in nonmotorized opportunities and would not adequately protect sensitive resource values, particularly in the Owyhee River GRA.

Objective RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

The special recreation management areas identified in Alternative B would not fully contain those lands needing special attention because of intensive recreation use and conflicts with sensitive resource values, particularly in the Snake River GRA. In addition, Alternative B prescribes OHMV designations and VRM classifications which may compromise the primitive and semi-primitive nonmotorized recreation opportunities and natural resource values of SRMAs in the Owyhee River GRA.

Objective RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Alternative B would provide permanent protection on only 30% of the eligible river miles in the resource area under a suitable recommendation for the main canyon systems of the Owyhee River and East Forks Owyhee River. Other river segments considered to have highly significant national river values would not be recommended as suitable for designation.

Objective RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Alternative B would provide for developed recreational experiences at existing sites throughout the resource area but would provide no direction in development of new recreation sites except those associated with roaded natural and primitive settings in the Owyhee River GRA. Alternative B would not adequately address the need for recreation site development in the Snake River GRA where recreation use is projected to be most significant during the next 20 years.

Objective RECT 5: Develop a trail system that provides a range of motorized and nonmotorized recreation opportunities for the public's enjoyment of primitive, semi-primitive nonmotorized, semi-primitive motorized and roaded natural settings.

Alternative B would not adequately address this objective because it would provide no direction in the development of nonmotorized trail opportunities. In addition, prescribed OHMV designations would significantly reduce the opportunity to develop nonmotorized trail systems. There would be no recreation facility (trail) development in the Snake River GRA to address increasing recreation demand for more diverse recreation opportunities.

Objective RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

The easement acquisitions prescribed in the Lands section of Alternative B would fully meet this objective.

Objective RECT 7: Retain at least 10% of the Owyhee Resource Area in a primitive recreational opportunity (ROS) setting.

Alternative B would not meet this objective because of OHMV designations and VRM classifications which compromise the long-term protection of existing primitive settings. Alternative B could result in about a 70% reduction is these settings; reducing primitive settings in the resource area from 13% to 5% of the total land area.

Wilderness

Change Agents

Vegetation treatments, fencing, water developments, OHMV designations, VRM classifications, utility corridors, and locatable and fluid mineral activities.

Impact Analysis

The 294,740 acres of wilderness study areas (WSAs) in the resource area (see Map WNES-1) are required to be managed under BLM's Wilderness Management Policy (IMP) to protect their wilderness characteristics; naturalness, and outstanding opportunities for primitive recreation or solitude. The IMP prohibits taking any action considered to adversely affect a WSA's suitability for congressional wilderness designation. An action is considered an impairment of wilderness suitability if: 1) it individually, or when considered collectively with other existing human imprints, makes the imprints of man substantially noticeable to a casual observer in the WSA as a whole, and/or 2) the action reduces the value of the WSA for wilderness as compared to other land uses.

In Alternative B, as with all other alternatives, the recommendation for congressional designation of 195,980 acres of public lands as wilderness is carried forward. Within this acreage are 3,890 acres of non-WSA, Section 202 FLPMA study lands which have also been recommended for wilderness designation. Unlike WSA lands, Section 202 study lands are to be protected only from unnecessary and undue degradation under authority of Section 302 of FLPMA.

Should Congress designate wilderness, those areas would be managed under the BLM Wilderness Management Policy (September 24, 1981) to preserve and enhance wilderness values. Management for specific wilderness areas would be determined through development of wilderness management activity plans which are generally required to be submitted to Congress within two years after wilderness legislation. The Owyhee RMP does not give specific direction for management of potential wilderness areas and the environmental consequences of wilderness designation are not presented in this document. The environmental impacts from wilderness designation were presented in the Owyhee Wilderness Plan Amendment EIS and the Owyhee Canyonlands Wilderness EIS. The impact analysis in these wilderness EIS documents reflects possible management scenarios for wilderness areas prescribed by the BLM Wilderness Management Policy.

To assess the long-term impacts on wilderness values in Alternative B, one must look at both prescribed management scenarios for affected WSA lands while under the IMP as well as prescribed actions which could affect wilderness values if wilderness designations do not occur.

Alternative B provides direction for management of wilderness values through identification of various visual resource management (VRM) classifications and off-highway motorized vehicle (OHMV) designations. Alternative B calls for interim classification of all WSA lands as VRM Class II areas where lands must retain their essentially natural and scenic character. To contribute to the retention of each WSA's overall naturalness, all affected WSA lands would have an OHMV Limited - Level 4-IMP(IA) designation where vehicle use would be confined to existing roads and jeep trails yearlong. Should WSA lands not be designated wilderness, OHMV use would be allowed on existing roads, jeep trails, motorcycle/ATV trails and historic (livestock and game) trails. This change in OHMV designations would encourage an increase in OHMV activity on lands currently possessing wilderness values (primitive and semi-primitive nonmotorized settings) in the Owyhee Canyonlands, Juniper Mountain and North Fork Owyhee Backcountry areas. While increased OHMV activity would probably not seriously alter the overall scenic quality of affected WSA lands, the imprints of man could become more noticeable in each

WSA as a whole (converting recreation settings to semi-primitive motorized) and could contribute to localized reductions in scenic values in select areas. The areas most likely to be affected are the plateaus surrounding the Owyhee Canyonlands and Deep Creek, and the less rugged portions of Juniper Mountain and the North Fork Owyhee Backcountry areas. Some penetration of the Owyhee Canyonlands and Deep Creek canyon can eventually be projected as OHMVs enter these canyonlands through side draws or down the more moderate slopes that are tucked into landscapes of mostly sheer cliffs. It is on the canyon slopes where there is the greatest concern for scenic quality degradation from OHMV trails. In the less rugged portions of the rock outcrop areas of the North Fork and Juniper Mountain, OHMV trails are likely to eventually develop through interconnecting draws among the outcroppings until they dead end at the rimrocks of the larger interior canyons.

The VRM Class II designation limits authorization of new developments so that such projects do not become substantially noticeable in each WSA as a whole. Alternative B allows for new rangeland facilities which are "nondegrading" or non-impairing in order to aid in riparian restoration efforts. To achieve riparian recovery in Alternative B, riparian fencing may have to be built in allotments affected by WSAs to exclude livestock from stream corridors and additional alternative water sources (reservoir or spring development sites) would have to be provided. In the case of the WSAs, fencing would involve mostly rimrock fences, either as continuous runs or as gap fences. New reservoirs would have to be relatively shallow and have larger than average surface acreages and adjacent borrow areas because of marginal site conditions (shallow soil depths and minimal topographic relief).

If WSAs were congressionally released from IMP without wilderness designation, a portion of the VRM Class II areas, and all of the VRM Class II-IMP areas in Alternative B would convert to VRM Class IV areas. In this visual classification, a broader range of rangeland projects (livestock, wildlife, and watershed) could occur. In the Juniper Mountain WSA complex, Alternative B prescribes clear-cutting seral juniper woodlands in order to restore grass, forb, and shrub species to sagebrush-grassland ecological sites. New pasture fences and spring developments are also identified to support livestock management practices. Stream channel stabilization projects, which involve lining streambanks with juniper trees, could also occur. New roads and jeep trails would be generated as a result of woodland cutting projects. As previously described, the OHMV Limited - Level 4-IMP(IA) designation would allow for continued use of these new vehicle routes as well as others. At least 12,900 acres of public land in the Juniper Mountain WSA complex would have substantial losses of wilderness characteristics before riparian fencing impacts are even considered, if released from wilderness consideration. The extent (acreage) of these impacts cannot be projected at this time because it would depend largely on where new riparian fences, reservoirs and spring developments would be placed. It is projected that vegetation treatment projects, OHMV activity and fencing and water developments would reduce remnant "natural" areas to substantially less than 5,000 acres (the minimum acreage required for BLM wilderness in most cases); thus causing the entire 44,780 acres of the Juniper Mountain WSA complex to lack wilderness values.

Impacts on wilderness characteristics from rangeland facility development similar to those of the Juniper Mountain WSA complex, but less extensive and severe, are projected to occur in the juniper woodland areas of the North Fork Owyhee River WSA, if released from wilderness consideration. The North Fork area would continue to be managed to VRM Class II standards, and woodland treatment projects (with accompanying access roads and trails) and fences are projected to be less numerous in order to retain a more natural landscape. However, the level of potential development is projected to be greater than would occur with wilderness designation where a VRM Class I standard would be imposed. Overall, including adverse impacts from OHMV recreational trail development, nearly 20,000 acres of the North Fork WSA would see moderate to severe losses of wilderness characteristic in Alternative B with some remnant "natural" areas remaining. These remnant areas would not be found in the main travel corridors (stream corridors and accompanying rimrock areas) projected to be used by the recreating public. Remnant areas would likely not be larger than 5,000 acres; thus causing the entire WSA (50,865 acres) to be without wilderness values.

VRM Class II-IMP and OHMV Limited - Level 4-IMP(IA) actions also pertain to the plateau lands of the Owyhee Canyonlands WSA complex. For these affected WSA lands, the change in VRM and OHMV management following IMP release is projected to result in activities that would substantially compromise existing wilderness characteristics. When reductions or losses of wilderness characteristics occur, they would likely result from mechanical drill seeding of some lands affected by prescribed fire or wildfire, OHMV recreational trail development along the canyon rimrocks and into the canyons, and some reservoir developments. The OHMV and reservoir development impacts have been previously described. The mechanical seeding process leaves behind a cultivated appearance to the landscape that could exist for many years. Details concerning prescribed fire and seeding project impacts on wilderness characteristics in the Owyhee Canyonlands WSA complex are discussed in the various alternatives presented in the Owyhee Canyonlands Wilderness EIS. From development scenarios provided by the Owyhee Canyonlands Wilderness EIS, and accounting for increased opportunities for OHMV recreational trail development and water developments, it is estimated that as much as 173,060 acres of the Owyhee Canyonlands WSA complex in the resource area could eventually have diminished wilderness characteristics (naturalness, solitude and primitive recreation values) over the long term; leaving only the canyonlands area (29,925 acres in the resource area) with wilderness characteristics.

There are two additional types of actions which could occur in Alternative B in the absence of wilderness designation: utility corridor development, and locatable and fluid mineral activities. There is a high probability for establishment and development of an enlarged and less restrictive utility corridor along the Paiute (El Paso) Gas Pipeline which runs north-south through the Owyhee Canyonlands WSA complex just west of the Duck Valley Indian Reservation. The existing corridor is one-mile wide south of Garat Crossing and use is currently restricted to underground developments only in the vicinity of the WSAs. The corridor is one of several routes which has been identified for future planning of high voltage powerlines to service interstate electrical needs of the western United States. Development of such a corridor, in the absence of wilderness or wild river designation for the East Fork Owyhee River, would severely reduce or eliminate wilderness characteristics on 10,330 to 10,760 acres of WSA plateau and canyonlands adjoining the Paiute (El Paso) Gas Pipeline (WSA ID-16-49D and WSA ID-16-52), some of the same lands that could also be affected by the other adverse impacts previously described. Refer to the various alternatives presented in the Owyhee Canyonlands Wilderness EIS for details on the Paiute (El Paso) utility corridor. IV-B-30

There is potential for locatable and fluid mineral exploration and development in the Owyhee Canyonlands WSA complex. Though currently identified as having low mineral development potential, there is a low to moderate possibility of some level of exploration activity associated with geological structures within or immediately adjacent to the river canyons. Despite the "unnecessary and undue" standards required by the 3809 regulations, any customary activity of an exploratory nature into the canyon walls of the Owyhee River system could cause irretrievable and irreversible impacts on wilderness characteristics (naturalness and outstanding opportunities for primitive recreation) on at least a localized basis in a location at the heart of the wilderness complex; potentially visible to river floaters who make use of the upper Owyhee River system in the three-State area of Oregon, Idaho and Nevada. For details concerning the potential impacts from mineral activity along the Owyhee River refer to the various alternatives presented in the Owyhee Canyonlands Wilderness EIS (mineral scenarios were only developed for Oregon WSA lands in this EIS because more information was available on the favorability of mineral development). As with utility corridor development, the potential for mineral development in the absence of wilderness designation is subject, in part, to congressional action on wild river suitability recommendations for the East Fork Owyhee River. There is also the potential for exploration and development of oil and gas reserves on the plateau lands of the Owyhee Canyonlands WSA complex. These are the same lands which could be affected by prescribed fire and seeding projects and OHMV activity. According to scenarios developed for the Owyhee Canyonlands Wilderness EIS, as much as 5,100 acres of BLM lands could be at least temporarily affected by energy exploration.

Conclusion

Implementation of Alternative B would not ensure the protection of WSA lands while they remain under the BLM Wilderness IMP. The interior stream and river corridors of most or all WSAs could potentially have their wilderness characteristics compromised or eliminated by fence and reservoir development to aid in riparian recovery. In the event of no wilderness designation, there is a moderate to high probability that as much as 268,705 acres of WSA lands in the resource area would experience a moderate to substantial lost of wilderness characteristics; with wilderness characteristics remaining only within the Owyhee Canyonlands (29,925 acres). The loss of wilderness characteristics would result from OHMV activities, rangeland facility development and vegetation treatment projects with some possibility of utility corridor development and mineral exploration and development contributing to the loss.

Meeting the Objectives

Objective WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Alternative B could not be carried out in compliance with the BLM's Wilderness IMP Policy. Alternative B could result in the loss of wilderness characteristics in portions of every WSA. The estimated level of rangeland facility development needed for riparian recovery would make the imprints of man substantially noticeable in each WSA as a whole. The new facilities in combination with projected increases in livestock use (about 30% resource area wide) would alter the relative value of WSA lands for livestock grazing over their value for wilderness preservation. Consequently, Alternative B would impair the suitability of WSAs in the resource area for potential wilderness designation.

Objective WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Alternative B is applicable to the Owyhee RMP only after congressional wilderness designation of select Section 603 and 202 study lands in the resource area. Any activity plan required because of wilderness designation would have to have the protection of wilderness values as its primary objective.

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Visual Resources

Change Agents

Vegetation treatments, fencing, water developments, watershed stabilization projects, wildlife guzzlers, recreation facilities and OHMV activities, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Alternative B prescribes managing all public lands in the resource area under one of four visual resource management (VRM) classes ranging from VRM Class II to Class IV as shown below (see Map VISL-B).

VRM Class	Acres
VRM Class I:	0
VRM Class II:	298,453
VRM Class II-IMP:	124,843
VRM Class III:	146,918
VRM Class IV:	749,777

VRM Class II would be the most restrictive class in Alternative B where the intent is to retain an essentially natural landscape. Class IV would allow substantial changes to the characteristic landscape. These classifications are defined in detail in Appendix VISL-1. Alternative B would not allow for any VRM Class I areas where pristine natural conditions would be preserved in the absence of wilderness designation. Any wilderness designation, however, would mandate VRM Class I for all affected lands.

It is the intent of VRM Class II management under current management (see Alternative A) to allow some development which is in harmony with the natural landscape. Developments could occur in VRM Class II areas if they are substantially unnoticeable to the casual observer. In Alternative B, greater latitude could allow for increased rangeland facility developments. The IMP encourages preservation of WSAs, or portions of WSAs, where pristine conditions exist. The association between IMP for wilderness resources and VRM Class objectives is discussed in detail in the wilderness impact analysis. In summary, impacts on the scenic quality of WSA lands would be least in Alternative B as long as the VRM Class II-IMP classification stays in effect. If WSA lands are released from the IMP, the visual quality of some WSA lands could be affected in the same manner as projected below for the various project developments identified in the other three VRM classifications prescribed in Alternative B.

Visual impacts would be most extensive from the implementation of vegetation treatment and rangeland facilities (riparian fencing and reservoir projects) in VRM Class II, III and IV areas. The degree and longevity of visual impacts from such projects is dependent upon the type of vegetative community involved.

Vegetation Treatments

In the juniper woodland communities (predominantly in the Jordan Creek and the northern half of the Owyhee River geographic reference areas), visual impacts would occur from prescribed fires in seral juniper stands and from harvesting seral stands for fuelwood. Alternative B prescribes burning up to 440,603 acres over the next 20 years, about 22,000 acres per year. About 21% of this (92,320 acres) would be within juniper woodland communities. In addition, commercial harvesting of juniper fuelwood is approaching 600 acres per year and could approach 1,000 acres per year by the year 2000. Cutting and burning could affect many of the fuelwood harvesting areas.

Within harvest areas, during the cutting period and for a number of years afterwards, the scenic quality of affected clear-cuts would be substantially reduced by a nearly continuous scattering of slash piles, numerous stumps about 8 inches in height, and constructed roads and jeep trails. The textures and colors of clear-cut areas would contrast sharply with those of surrounding woodland communities or the remanent sagebrush-grassland communities. However, the general shape or form of the clear-cut openings and the line defining them would mimic that of natural openings found throughout the woodland region. As a result, the adverse impacts on visual quality would diminish as the viewing distance increases. Once the viewing distance reaches several miles (beyond foreground viewing) and the presence of slash is not readily discernible, the visual impact would be minimal. As the clear-cuts regain an abundance of new understory vegetation (grasses, forbs and shrubs), and needles and bark fall from slash piles, the casual observer would not be readily able to distinguish between natural openings and clear-cuts. Mitigation of visual impacts for projects located in the background (generally greater than 3 miles) could be hastened through the use of post-cut prescribed fire. The fire would add a temporary (3 to 5-year) adverse impact on the landscape by blackening it, but would remove the contrasting cutting debris.

The duration of adverse impacts from a woodcut site viewed within the foreground (usually less than three miles) would be dependent upon whether the site receives a post-cut prescribed burn. Burns would generally occur from 2 to 5 years after tree harvesting. As with background viewing, the fire would generate its own adverse impacts on visual quality by adding a sharply contrasting black color to the landscape, but would eliminate the effects of slash piles. With the aid of wind, rain, snow and natural or planted revegetation, the visual effects from the blackened ground would disappear within 3 to 5 years. Only blackened stumps would remain as a reminder of the woodcutting. The stumps could remain for 20 years or more with their visual presence only being lessened by the growth of surrounding shrubs that provide screening. In the absence of a post-cut fire, which is projected to occur about 25% of the time, slash and stumps would be visible well beyond 20 years with stumps lasting 50 years or more.

With cutting and post-burn effects lasting from 10 to 50 years, and cutting projected to occur at a rate of about 600 to 1,000 acres or more per year, it is highly probable that juniper fuelwood harvesting could contribute to reduced scenic quality on about 18,000 acres by the year 2018. At that time, about half of the acreage (9,000 acres) would retain the severe, short-term adverse visual impacts projected while the remaining acreage would be in varying stages of recovery.

In juniper woodland communities where only prescribed fire would be used, the effects of fire on visual quality would also depend upon viewing distance as well as the size of the trees involved. When viewed from the foreground, burned areas would contain numerous charred to partially charred tree skeletons and blackened earth and rock. Visual quality would be severely degraded by contrasts in line, form, color and texture. The larger the trees involved, the greater the visual degradation would be. Partially burned trees could retain reddened dead foliage for 3 to 5 years. The reddish color may be seen for several miles, well into background viewing areas. Only after the needles have dropped would trees in close-background areas become indiscernible on the landscape. The presence of burned background trees would also be lessened as the blackened bark falls away to leave a light grayish wood color not readily detectable behind a back drop of sagebrush-grassland communities. This process could take more than 5 years. As in the foreground, burned larger trees would have more of a visual impact in the background areas by requiring greater viewing distances before becoming indiscernible. Foreground viewing of barkless tree skeletons would remain for as long as 50 years or more depending upon the size of trees burned.

Assuming at least a 5-year period before fire evidence would be reduced, and assuming that 4,600 acres of juniper woodlands would be burned each year independent of woodcut areas, it is highly probable that there would be as much as 23,000 acres of the woodland landscape showing the more severe adverse visual impacts from prescribed fire each year. By the year 2018, the woodland communities could cumulatively show another 69,000 acres of residual burned skeleton forests having a lesser adverse impact on visual quality. In summary, it is highly probable that as much as 92,000 acres would have some degree of visual degradation by the year 2018. Since prescribed burning would be done annually to control the juniper woodland community, visual impacts from burning would always be present. However, over time the degree of impact would lessen as reburns would be affecting smaller and smaller age and size classes of encroaching seral trees.

In those areas where prescribed fire would affect sagebrush-grassland communities, the visual impacts would be minimal and of short duration. Prescribed fires in these plant communities would eliminate old-age sagebrush and return the ecological site to an earlier successional stage. This would leave a vegetative mosaic of open grasslands intermingled with remnant stands of big sagebrush on deeper soiled swale sites or low sagebrush on shallower, often stony, low ridgeline sites. This intermingling of line, form, color and texture caused by the variety of vegetation and rocky soil profiles, often including low, meandering bedrock ledges or plateau breaks, would be considered more scenic than a homogeneous landscape of sagebrush. The adverse effects of fire in the sagebrush-grassland communities would come immediately after the fire, and for the following one to three growing seasons when the blackened evidence of the fire persists. The fires would leave behind few vegetation skeletons. Those present would be small (sagebrush) and would be rapidly broken down by livestock and wildlife passage, wind, rain and snow. Because of the rapid recovery of visual quality on sagebrush-grasslands, and the relatively small amount of acreage to be burned at scattered locations, prescribed fire is not projected to be a major contributor to the cumulative impact of vegetation treatments in the resource area.

Cumulatively for burning and cutting, it is projected that more severe adverse visual impacts would be found on a total of 32,000 acres per year after the year 2018. An additional 78,000 acres would show a lesser impact due to natural recovery. These impacts would occur predominantly in juniper woodland communities. This acreage is about 43% of the woodland communities. There is currently no way to quantify how many acres of viewshed would ultimately be affected, either as foreground or background, by vegetation treatments. But given the type of topography and vegetation present and the subsequently large viewsheds possible for any treatment site, some type of treatment site, whether detectable as such or not, would be visible from nearly any observation point on over 75% of the woodland region.

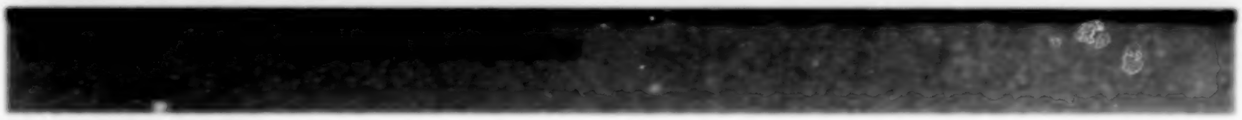
Alternative types of vegetation treatments (chaining or chemical spraying) would produce effects similar to those associated with cutting and burning. In the case of spraying, blackened trees would be absent yet reddened foliage and tree skeletons would persist. Chaining would uproot trees rather than leave behind stumps.

Fencing

In VRM Class II areas, new range improvement projects should be less than those allowed in VRM Class III and IV areas in order to retain an essentially natural landscape. Existing projects would be reconstructed, if necessary, to meet a higher visual standard at the time of scheduled or required maintenance.

Alternative B identifies fence development to aid in riparian recovery. These fences would be riparian exclosures along one or both sides of a stream course, exclosures around developed springs and pasture division fences. Placement of fencelines across landscapes to exclude livestock from wetlands or to delineate and administer allotments and pastures would not directly affect visual quality, particularly in woodland areas. The fences would generally be unnoticeable on the landscape from short viewing distances. What would become noticeable would be the jeep and livestock and game trails which would eventually parallel one or both sides of the fenceline, and the differences in forage utilization that could result from differential levels of livestock use. The jeep trails would result from fence maintenance or off-highway vehicle recreation activities. These features could become substantially noticeable in what may have been an otherwise natural landscape. These effects are quite noticeable in the Owyhee Front SRMA where extensive OHMV use occurs and numerous miles of fence were constructed in the 1980s. Differences in forage utilization across fencelines can also produce a line separating the same vegetative community into two distinctively contrasting colors brought about by differences in the amount and type of forage consumed. The same effect, but more severe, can be caused by fenced seedings. There are examples of this throughout the resource area, particularly along fencelines which delineate boundaries between federal, State and private lands as well as highway rights-of-ways.

Stream riparian and spring development exclosure fences can cause both beneficial and adverse impacts on visual quality on a localized basis depending on location. These fencing projects usually include an exclosure fence to exclude livestock from the riparian area, a headbox buried beneath the ground to trap water, and a buried water pipe that extends outside the exclosure to a trough (usually green). Construction would result in minimal surface disturbance and lead to an overall improvement in vegetative cover within the exclosure. Lush riparian communities add to the visual quality of the landscape through increased diversity in line, form, color and texture, as well as contribute to increased water which reflects color. However, the physical isolation of riparian areas from livestock use can also contribute to concentrated trampling and removal of vegetation outside the exclosure fence. There is the potential to create "boxes" of riparian landscapes that could affect viewsheds along water courses. These visual conditions could be particularly acute in Alternative B with an overall 11% increase in livestock use. To mitigate this visual impact in sheer-walled canyon areas of the Owyhee River GRA, fences could be placed among the sheer topographic breaks that surround the canyons. Elsewhere, mitigation would be more difficult in predominately V-shaped drainages because fences would generally have to be placed in the bottomlands adjacent to the riparian areas, forcing livestock and game to trail along the fencelines. In these areas, fences could be constructed to not run in straight lines for any great distance, to not remain an equal distance from the stream course along the length of the riparian area, and to tie into prominent natural features where possible.



Livestock Reservoirs

As with fences, livestock water impoundments (reservoirs) can be designed to reflect concerns over visual quality depending upon the affected area's VRM classification. A higher visual standard would be achieved by emphasizing the use of line and form in the layout and construction and reconstruction of earthen dams. These two elements of the natural landscape would need to be mimicked during construction of the dam and impoundment area in order to successfully blend a reservoir into the natural landscape. Generally, the blending would require the use of curved lines to define a crescent-shaped, shallow-sloped dam form (the dam slopes to be of equal or lesser gradient than surrounding topography that defines the stream channel or draw). Such a dam would appear as a "natural" extension of surrounding topographic relief and would assure that the surface area of the impounded water appears as a small circular, oval or "teardrop" lake formation that harmonizes with the surrounding landscape characteristics. The presence of surface water would enhance the scenic quality of landscapes.

Restoration of native vegetation around the reservoir site could also lessen the visual impact of dam construction and surrounding surface disturbances by restoring the original landscape elements of color and texture. However, reservoirs, by their very purpose, concentrate livestock use which locally inhibits or prevents vegetation restoration. Vegetation restoration would also be difficult when borrow pits are used to construct dams. Borrow pits remove A and B soil horizons, leaving behind soil substrates that would be generally unsuitable for vegetative growth. These exposed substrate areas would not only reduce revegetation potential but usually would have a notably different color than surface soils which would make the dam site highly visible at greater viewing distances even though line and form standards would be met for the dam itself.

In VRM Class III areas, reservoir construction could occur without restricting numbers and attempts would be made to construct dams to the standards required in VRM Class II areas. Borrow pits could be used with discretion and top soils would be set aside to recover the pit area. In VRM Class IV areas, reservoirs could be constructed using more conventional methods with dam faces at 2:1 slopes (vertical:horizontal), straight lines defining the front of the dam as well as the water line behind the dam, and the use borrow pits. Such methods could introduce unharmonious straight, vertical or steep diagonally lines and "sharp" forms into the desert plateau landscape comprised of horizontal straight lines and subordinate curved or wavy lines and "soft" forms. However, in steep, mountainous terrain or draws, steeper diagonal lines and sharper forms may be appropriate to mimic terrain features. Since most of the resource area would be in VRM Class IV, this type of construction could continue to be the rule rather than the exception. However, there is currently a policy to build all new reservoirs to Class II standards whenever possible, allowing for deviation to the Class III and IV standards where necessary because of specific physical site constraints.

Pipelines

Water pipelines extending for many miles from the water source are often found in association with spring developments and wells. There is technology available to keep surface disturbances associated with laying pipelines to a minimum in deeper soil types. In shallower, rocky soils, bulldozed trenches could be required, thereby enlarging the linear disturbance which contributes to color, texture and line disharmony on the landscape. While disturbances could readily heal in many areas within 5 years, the pipeline would often parallel a maintenance road that would perpetuate the visual impact of the pipeline. The troughs used on pipelines would not be obtrusive, but could lead to the localized loss of vegetation from concentrated livestock use, somewhat reducing visual quality.

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Watershed Stabilization Projects

Watershed stabilization projects would be used to secure eroding streambanks and prevent further erosion in side slope gullies, usually the result of concentrated grazing by livestock and recreation use. The projects would use unlimbed juniper trees to line stream channels (attached by steel cables) and rock gabion dams or wooden planks. Initial placement of these projects would include disturbance to riparian vegetation and soil areas or, in the case of juniper structures, would leave the stream lined with numerous, unsightly dead trees and an occasional exposed steel cable. Such disturbances would be short-lived. Disturbances associated with rock gabion dams would be mitigated by riparian vegetation regrowth and channel siltation in less than 5 years. Juniper logs would become imbedded in streamsides, as intended, within 5 to 10 years. Once vegetation is restored, usually to a degree beyond that present prior to the project, the affected stream channels would show an overall improvement in visual quality. The improvement would be attributed to the increased abundance, and sometimes diversity, of riparian vegetation. Increasing riparian vegetation along canyon bottoms would enhance the overall scenic quality of the landscape by enriching it with color and texture. These efforts could also improve the yearlong abundance of surface waters that would enhance visual character.

Wildlife Guzzlers

Wildlife guzzlers would consist of a fence exclosure and an encatchment system that would look like a corrugated, square to rectangular piece of roofing set just above ground level. Such projects would usually be associated with dry climate areas of the Owyhee Front. As such they do not release water to generate riparian vegetation screening, but sagebrush and grasses could become dense within the exclosures. To mitigate the visual intrusion of these small projects, the guzzler sites could be painted a compatible color and placed to not draw attention within the affected viewsheds.

Recreational Facilities and Activities

Existing and proposed recreation site developments in Alternative B would be few and widely scattered and generally would not affect scenic quality of the resource area as a whole. Recreation sites would be designed to reflect concern for the four basic elements of the characteristic landscapes found in their viewsheds; form, color, line and texture. The Owyhee Front OHV Trailheads and Jump Creek Recreation Site facilities would alleviate OHMV-generated soil damage, public health and sanitation concerns, and excessive soil damage caused by indiscriminate foot trailings in sensitive vegetation communities. All these factors are contributing to a decline in visual quality at frequently used recreation sites. Recreation site developments similar to the North Fork Campground development that could occur in Alternative B would initially affect the natural landscape. Yet, over the long term, these projects would reduce visual damage to recreation sites from concentrated recreation use as more and more people venture into the Owyhee Uplands plateau.

Implementation of Alternative B would result in a continuation of OHMV impacts such as those caused by hill climbing activities within the Owyhee Front SRMA (Snake River GRA). The change from a Limited - Level 1 designation to a Limited - Level IB and IIA would make the job more difficult. Additional OHMV trails are projected to develop, some of which would likely be steep hill climbs on what are now natural appearing foothills and buttes. Additional hill climbing areas in the Owyhee Front SRMA would be discouraged through education, enforcement and facility maintenance.

[redacted]

Elsewhere, visual impacts from unplanned, unmaintained trail development off the existing dirt road and jeep trail network would at first produce isolated reductions in scenic quality. Over time it would cause cumulative impacts throughout the Owyhee Mountain Range (Jordan Creek GRA), particularly around Silver City. Eventually, OHMV use would be projected to impact the more moderate canyon slopes of the Owyhee River system in the Owyhee River GRA. Outside of the Owyhee Front, financial resources to effectively manage OHMV activities under the Limited - Level IA designation prescribed for the resource area as a whole, and to maintain the OHMV trail system it would generate may not be adequate. Visual degradation caused by indiscriminate OHMV activity would go largely unchecked.

Energy and Mineral Development

Open pit mining operations at the Stone Cabin and DeLamar Mines are visible from many areas within the Silver City area and Jordan Creek watershed (VRM Class II) and surrounding VRM Class III and Class IV lands. Impacts on visual quality vary within the region depending upon the viewer's elevation and slope aspect. When in full view of the mining operation, impacts on visual quality are significant in both the short term and long term, and can only be partially mitigated. Cumulative impacts on visual quality in the Snake River and Jordan Creek geographic reference areas from past and existing mining are already considered to be substantial. Localized visual degradation is projected to continue from ongoing mineral exploration and development activities in the Silver City Range. There is currently a low probability that mineral development of the magnitude of DeLamar and Stone Cabin mines would occur in other nearby mountains, as adjacent areas have been thoroughly explored and appear to have low mineralization.

While much of the Owyhee River geographic reference area is currently considered to have low mineral development potential, there is a low to moderate possibility that exploration activities could come to this region of the resource area and also cause an irreversible and irretrievable loss of visual quality. Of greatest concern are the Owyhee Canyonlands where geological structures associated with fracturing and faulting invite exploration. As with the steep slopes of the Owyhee Mountains, exploration activities which would deface the canyon walls of the Owyhee River system cannot be rehabilitated, partially destroying what is considered by many a national scenic treasure. Only wilderness designation or the wild river designations prescribed in Alternative B would ensure the long-term protection of the East Fork, South Fork and upper North Fork Owyhee River by withdrawal of public lands from mineral entry. For details concerning impacts of mineral exploration and development in the Owyhee Canyonlands, refer to the Owyhee Canyonlands Wilderness EIS.

Along the Owyhee Front, and in the Owyhee Canyonlands area, there is a low potential for the exploration of oil and gas resources. For the purposes of environmental analysis, the Owyhee RMP provides a development scenario relating to these resource uses. In both areas, the oil and gas activities would introduce a series of small facilities to explore and extract discovered reserves. On the plateau surrounding the Owyhee Canyonlands, such developments would seriously contrast with the characteristic elements of the vast, open, relatively flat natural landscape. Viewsheds have the potential to be quite large. It is projected that 5,100 acres of plateau lands would have scenic quality substantially reduced by oil and gas activities in the scenario given in the Owyhee Canyonlands Wilderness EIS. Visual impacts could not be notably reduced by alterations in facility design and coloring. Along the Owyhee Front, rolling, highly convoluted peneplain topography could be used to mitigate the developments. However, because of their vertical character as compared to the somewhat horizontal character of the natural landscape found in the Owyhee Front as a whole, some level of adverse impact on visual quality is projected in very localized viewsheds.

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Utility Corridors

The Owyhee Canyonlands Wilderness EIS also provides a development scenario for a high voltage powerline utility corridor through WSAs ID-16-49D and 16-52 lying just west of the Duck Valley Indian Reservation. In the alternatives presented in the wilderness EIS there are 10,330 to 10,760 acres of WSA lands where scenic values could be substantially reduced by powerlines in the absence of wilderness designation. The impact would be caused by the introduction of large, vertical, columnar forms and vertical lines of towers as well as surface disturbances from construction and maintenance roads into a vast, open, relatively flat plateau landscape. It is projected that an additional 25,000 acres of non-WSA lands could also be affected by utility corridor development. This visual impact could be mitigated or prevented by the alternative wild river designation for the East Fork Owyhee River.

Conclusion

Implementation of Alternative B would result in the widespread degradation of scenic quality in the woodland communities of the resource area from vegetation treatment projects. It is projected that about 43% (110,000 acres) of the woodland communities would exhibit slight to severe impacts on scenic resources over the next 20 years. Affected viewsheds in the woodland region could exceed 75% of the land base. However, over the long-term (20-50 years), vegetation treatments would produce a highly scenic landscape diverse in the four basic landscape elements (line, form, color and texture). Widespread visual degradation to a severe degree in also projected to occur from ongoing mineral exploration and development activities in the Owyhee Mountain Range. Range facilities combined with recreational use (mostly OHMV activity) and small scale mineral activities would cause localized slight to severe adverse impacts that would eventually contribute to an overall accumulative decline in the scenic quality of the resource area as a whole. Of particular concern are the number of new OHMV trails which could affect VRM Class II areas to the point where an essentially natural landscape could not be retained. Though causing some alteration of natural landscapes, the development of recreation facilities to manage both motorized and nonmotorized recreation use would have some beneficial localized impacts on scenic quality at isolated, specific sites and areas by mitigating the effects of concentrated recreational use.

In the absence of wilderness or wild river designations in the Owyhee Canyonlands region, utility corridor developments would be likely to cause severe, adverse visual effects on as much as 35,760 acres. Should fluid mineral exploration also come to the plateau surrounding the Owyhee River, an additional 5,100 acres could have substantial adverse visual impacts during the exploration period, or for the long term if reserves are discovered. Locatable mineral exploration in the canyonlands could also degrade highly scenic areas.

Meeting the Objectives

Objective VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Alternative B would not fully meet this objective because it would not provide for any VRM Class 1 designations to protect the highly natural and highly scenic areas of the resource area. VRM Class 1 designations are essential to meeting recreation objectives RECT 1, RECT 2, RECT 3 and RECT 5. Alternative B also would cause an increased visual presence of rangeland facilities in some VRM Class II areas to a level that may not be appropriate for the retention of an essentially natural landscape.

Cultural Resources

Change Agents

Scientific collection, mining activities, ACEC designation, OHMV activities, vandalism, livestock grazing, wildlife habitat exclosures, streambank stabilization, acquisition and weathering and decay.

Impact Analysis

Planned actions which produce adverse impacts on cultural resource sites are limited by management procedures to scientific collection and excavation, and would only occur in situations where scientific research by an accredited entity (such as a university or other research organization) is permitted. These impacts would be mitigated, however, by the compilation of scientific data which are deemed to be significant by the archaeological profession. Beneficial impacts are produced by management strategies designed to preserve scientific data for future use, or for recreational or educational use. In Alternative B this latter category includes the protection accorded to the Oregon Trail and the existing Guffey Butte/ Black Butte, Silver City and DeLamar National Register Districts.

Adverse impacts which occur to cultural resource values as a result of the implementation of projects generated by other resource activities are generally diminished by the performance of project specific cultural resource inventories in advance of project implementation. If it appears (as a result of a cultural resource inventory) that a cultural resource site would be adversely impacted by project implementation, the project be redesigned to avoid the impact. Should this not be possible, adverse impacts would be mitigated by appropriate strategies, including scientific excavation and collection, depending on the significance of the site in question. A significant exception to this would come from projects conducted under the Mining Law of 1872. It is often not possible to respond within a reasonable time frame to potential adverse impacts caused by mining operations.

Impacts on cultural resource sites from minerals related actions could continue in the Lambert Table and Rooster Comb Peak areas since no ACEC designation or special management to protect cultural resources is prescribed for these high cultural resource value areas in Alternative B.

Additional adverse impacts on cultural resource values would occur from natural weathering and decay.

Beneficial impacts on cultural resource sites could occur as a result of projects generated by other resources. Wildlife exclosures could have the effect of isolating a cultural resource site from adverse impacts from livestock grazing, riparian treatment plans could benefit cultural resource sites by providing streambank stabilization, and lands actions taken to block up federal land holdings could facilitate the management of large clusters of significant cultural resource sites.

Cultural resources are fragile and nonrenewable, and adverse impacts are generally cumulative through time. Therefore, short-term impacts (such as a single occasion of vandalism) could increase in severity from natural forces (erosion, etc.) so that the long-term (20 year) effect increases in severity. In Alternative B only three sites would be visited per year to determine site condition, so that over the next 20 years, the majority of the 444 sites known to be deteriorating would be destroyed.

Conclusion

Beneficial effects would accrue from actions taken to actively manage cultural sites, such as site monitoring to determine rate of deterioration, and the development of site treatment plans. Other beneficial effects would accrue as a result of the implementation of land treatment programs (riparian, wildlife exclosures, etc.), and land exchanges.

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About the same number of cultural resource sites (as in Alternative A) would continue to deteriorate from the effects of change agents, including minerals program actions, and natural forces. The overall effect over the duration of the plan could be generally adverse.

Meeting the Objectives

Objective CULT 1: Protect known cultural resource values from loss until their significance is determined.

5 years: This objective would not be met.

20 years: This objective would not be met.

Objective CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

5 years: This objective would be met for Guffey Butte/Black Butte Archaeological District/ACEC, Silver City and DeLamar Historic Districts and Oregon Trail; but not met for Rooster Comb Peak, Lambert Table and Sinker Creek ACEC's.

20 years: This objective would be met for Guffey Butte/Black Butte Archaeological District/ACEC, Silver City and DeLamar Historic Districts and Oregon Trail; but not met for Rooster Comb Peak, Lambert Table and Sinker Creek ACEC's.

Objective CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

5 years: This objective would be met.

20 years: This objective would be met.

Hazardous Materials

Change Agents

Land use authorizations and mining activities.

Impact Analysis

The Bureaus approach to hazardous materials management on public lands in this and all alternatives (1) seeks to prevent the generation and acquisition of hazardous wastes; (2) is intended to reduce the amounts and toxicity of wastes generated; (3) provides for the responsible management of waste materials in order to protect the natural resources as well as the people who live and work on and those who use Bureau-managed lands; and (4) provides for aggressive clean up and restoration of Bureau lands that are contaminated by waste materials.

All proposed activities on public lands would be thoroughly analyzed as to whether materials potentially hazardous to the environment and the public welfare would be affiliated with the activity. A full disclosure of all hazardous materials, their use, storage, transport, and disposal would be required prior to authorization.

The largest hazardous materials site in the resource area is the DeLamar Mine. The cyanide heap leach pond and cyanide pond are on public lands and are permitted by the State of Idaho. Large quantities of chemicals and fuels are transported over Bureau administered roadways as part of this mining operation. Operation of the Stone Cabin Mine would require additional chemicals and fuels.

Conclusion

The overall impact of Alternative B on hazardous materials management would not be substantial.

Meeting the Objectives

Objective HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. This objective would be met.

Areas of Critical Environmental Concern

Change Agents

Relevant change agents for each area are listed below. The impact analysis for each of these change agents applies to those areas where identified. Impacts on specific areas are addressed where notable. See Table ACEC-4B for a tabular impact analysis summary.

- Guffey Butte/Black Butte Archaeological District: recreation use.
- Owyhee River Bighorn Sheep Habitat Area: livestock management, recreation use and OHMV activities.
- Boulder Creek Outstanding Natural Area: livestock management.
- North Fork Juniper Woodland Outstanding Natural Area: water developments, livestock management, fencing, recreation use and OHMV activities.
- Cinnabar Mountain: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Coal Mine Basin: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities and recreation use.
- Hells Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities and mineral materials activities.
- Jump Creek Creek: livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, recreation use and OHMV activities.
- Juniper Creek Watershed: livestock management, juniper removal, fire management, locatable minerals, recreation use and OHMV activities.
- Juniper Mountain: water developments, livestock management, fencing, recreation use and OHMV activities.
- Lambert Table: livestock management.
- McBride Creek: rights-of-way, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Pleasant Valley Table: livestock management, juniper removal, fire management, fluid minerals activities and recreation use.
- Rooster Comb Peak: rights-of-way, juniper removal, fluid minerals activities, and OHMV activities.
- Sinker Creek: rights-of-way.
- Sommercamp Butte: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- Squaw Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- The Badlands: rights-of-way, water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- The Tules: recreation use.
- Upper Deep Creek: water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.

[redacted]

Impact Analysis

The impact of Alternative B rights-of-way developments would be similar to that identified in Alternative A. Granting subsurface rights-of-way would have short-term and potentially long-term adverse impacts on botanical, cultural, scenic, watershed and wildlife resources. Ground disturbance, depending on topography and soils, would cause erosion and disturbed sites could be invaded by exotic plant species. In areas occupied by special status plants, exotic plant invasion would be detrimental to the native populations. Exotic plants would also potentially alter the composition of botanical reference areas. Because of the limited availability of native plant species for rehabilitation projects and the difficulty of re-establishing vegetative cover on some sites, subsurface rights-of-way would detract from the scenic and biological quality of some areas. Surface rights-of-way that require no ground disturbance would typically not impact botanical and cultural resources, however scenic qualities could be adversely affected, as could some wildlife species. Impacts from ground disturbing surface rights-of-way would be similar to those for subsurface rights-of-way. Overhead rights-of-way would adversely affect scenic values and potentially raptor populations, but their impact on botanical, cultural, watershed and other wildlife would be either short-term or absent, depending on the extent and requirement for surface disturbance.

The development of 45 springs, 19 reservoirs, and 22 miles of pipeline with associated troughs recommended in Alternative B would have an overall adverse long-term impact in areas recognized for their high quality or unique botanical resources (either rare plant or excellent condition communities). Adverse impacts would arise directly and indirectly from construction (vegetation destruction, alteration, weed invasion), increased livestock concentrations (trampling, grazing), and shifting of livestock into sensitive areas. Areas with no existing water, steep slopes and low grazing pressure would particularly be adversely affected by such actions. However, pipelines that pass through an area in order to disperse livestock could have a beneficial impact by moving livestock away from significant resources and effectively lowering use in these areas. Some wildlife species would benefit from construction of reservoirs, however the majority of the areas, with the exception of the Owyhee River Bighorn Sheep Habitat Area where reservoir construction is restricted, were not identified for wildlife resources.

Water developments typically have an adverse impact on scenic qualities by detracting from an area's natural appearance. Spring development and dewatering would adversely impact riparian vegetation, scenic qualities and wildlife, particularly amphibians and fish populations, by reducing water availability at the source and altering the habitat. While the existing policy of fencing water sources and overflows to protect the habitat would have a beneficial impact on the vegetation, watershed and wildlife, it adversely impacts scenic values. Alternative B would have a slightly greater overall adverse impact than Alternative A due to the 19 additional miles of pipeline and associated troughs.

In Alternative B, the lack of restrictions on salt placement and grazing use would generally have a long-term adverse impact on the areas. Currently salt may be placed anywhere except by water, putting colonies of special status plants, representative plant communities, cultural sites, some wildlife species, and scenic viewsheds at risk in the immediate vicinity of the blocks. Changes in livestock grazing regimes that effectively increase use and subsequent trampling would potentially lower the biological diversity of the areas, as well as adversely impact some cultural resources and wildlife, special status species, and scenic qualities. Indirect increases in grazing use occur when range fires displace livestock into areas that normally receive low levels of use. Some of the areas have had little historic grazing, often due to their steep terrain. Within or adjacent to such areas, the addition of range improvement projects such as pipelines, reservoirs, and fencing would increase grazing use and trampling impacts by effectively extending the season-of-use. The overall impact of Alternative B would be similar to that of Alternative A.

Pasture fencing projects vary in their impact on an area, depending entirely on their placement and subsequent changes in use by livestock and wildlife. Pasture fences could effectively increase livestock use in some areas, resulting in long-term adverse impacts on the vegetation, scenic quality, and cultural resources due to the higher concentrations of animals and potential increase in bare ground. However, the opposite could also be true. Installation of a pasture fence could eliminate or decrease livestock use of a particular area, resulting in a long-term beneficial impact due to improved livestock management. The 101 miles of pasture fence identified in Alternative B would primarily be built to exclude livestock from riparian areas. Riparian pasture fences would have a long-term benefit on the riparian portions of areas such as the Owyhee River Bighorn Sheep Area, Boulder Creek, Hells Creek, Jump Creek, Juniper Creek Watershed, Juniper Mountain, Lambert Table, North Fork Juniper Woodland, and Upper Deep Creek. It is projected that the upland vegetation in portions of these same areas would suffer some adverse impacts due to increased use and trampling along fencelines. For Alternative B, the overall long-term impact of pasture fence construction would be both beneficial and adverse.

Thirty miles of exclosure fence are identified for development in Alternative B, as compared to Alternative A and C, which have 137 and 24 miles of fence identified, respectively. In general, exclosure construction has a direct, short-term adverse impact on the vegetation of an area as disturbance occurs, but it is typically minimal (scraping of ground is not permitted). Scenic qualities are potentially lowered by poor placement of an exclosure. However, because of the long-term benefits derived by plant communities and wildlife within exclosures, the overall impact of Alternative B would be less beneficial than Alternative A, in which 107 additional miles of exclosure fence would be constructed.

In Alternative B, 92,320 acres of western juniper are prescribed for burning and 18,090 acres are identified for cutting. This is 36,620 acres and 1,090 acres more, respectively, than identified in Alternative A. Western juniper is a plant community component in twelve of the twenty areas (Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, North Fork Juniper Woodland, Cinnabar Mountain, Hells Creek, Juniper Creek Watershed, Juniper Mountain, Lambert Table, Pleasant Valley Table, Rooster Comb Peak, The Badlands, Upper Deep Creek). Of the twelve areas, juniper removal is prohibited in all or portions of seven of them (Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, North Fork Juniper Woodland, Hells Creek, Juniper Mountain, Lambert Table, Pleasant Valley Table). Juniper removal has been identified as a Change Agent for four of the twelve areas - Juniper Creek Watershed, Pleasant Valley Table, The Badlands, Upper Deep Creek. Implementation of Alternative B would essentially have no impact on the other eight areas.

Removal of juniper in The Badlands would have a long-term adverse impact on the quality of this area as an RNA and potentially on Simpson's hedgehog cactus, a BLM sensitive plant species. While the direct impacts of fire on special status plants would probably be short-term, indirect impacts caused by vegetation removal and subsequent erosion could be detrimental. It is doubtful that juniper removal by fire would be successful due to the sparseness of the understory for carrying fire, the abundance of rock, and the discontinuous juniper habitat. Cutting juniper to remove it would have a greater adverse impact because of the associated roads and slash piles that would develop. The high scenic value of The Badlands, Juniper Creek Watershed and Upper Deep Creek would be adversely impacted by the greater acreages of juniper identified for removal in Alternative B.

In Alternative B, all fire-related management actions, including suppression, vehicle use and rehabilitation, would be open and allowable. Both short-term and long-term adverse impacts would result in the event of fire management. Because of fire's role in the development of most plant communities, the interruption of this process through suppression efforts would alter the successional course. The research and educational value of RNAs would be diminished by active suppression management. Suppression

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would preclude the opportunity to monitor and research natural recovery of relatively undisturbed plant communities. Because many of the areas are in relatively high ecological condition, fires would not burn as intensively as in areas dominated by exotic annuals. Thus, recovery would be faster and plant communities would continue to be dominated by natives.

In forested areas under suppression management, unhealthy trees would continue living, potentially serving as a disease source for unaffected individuals, potentially leading to higher mortality and catastrophic fire. In certain areas, interruption of the natural fire process could increase juniper density to an undesirable level. The use of soil-disturbing emergency fire vehicles outside of existing roadbeds would create short-term and possibly long-term erosion problems, depending on the level of the disturbance. Vehicle disturbance would have a long-term adverse impact on natural plant community processes and potentially on special status plant species.

The absence of constraints on rehabilitation could have both a beneficial and adverse impact. Beneficial impacts would result if, for example, the area burned intensively with high loss of vegetation and native species were successfully seeded to reduce erosion, essentially helping maintain the soil resource. However, should exotic species be used, native plant recovery, including that of special status species, would probably be impeded by competitive interaction with the exotics. The composition of the plant community could be permanently altered and set on a different course of recovery than if it were allowed to recover on its own. The overall impact of Alternative B on the areas would be similar to that projected in Alternative A.

In Alternative B, the impact of fluid mineral development would be the same as in Alternative A. Although fluid mineral development is unlikely in most of the resource area because of its geology, exploration activities could occur. Exploration would have either a short-term or long-term adverse impact on scenic, wildlife, botanical, watershed, and cultural resources. Short-term impacts would arise from the exploratory phase due to increased OHMV use and subsequent road development. Wildlife disturbance, vegetation degradation, erosion caused by ground disturbance and long-term impacts in the form of site degradation would result from most fluid mineral development projects. In addition to the surface stipulations designed to mitigate impacts, portions or all of Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Area, Juniper Creek Watershed, Juniper Mountain, Lambert Table, Sinker Creek, and The Tules are either closed or prohibit surface occupancy for fluid mineral activities.

The impact of the mineral material activities projected in Alternative B would be similar to those projected in Alternative A. Mineral material disposal would have either a short-term or long-term adverse impact on scenic, wildlife, botanical, and watershed resources in all currently undesignated areas, depending on the intensity of disturbance. Areas with high cultural values would not be adversely impacted since surveys would be conducted prior to approval of any discretionary action. Areas with existing special designations would incur no adverse impacts since these areas are already closed to mineral material disposal. Adverse impacts that would occur would be similar to those for fluid mineral exploration and development. Impacts would arise from increased OHMV use, road development, vegetation degradation, and erosion caused by ground disturbance. The remoteness and difficult access of some areas would probably preclude mineral materials disposal.

In Alternative B, 95,687 fewer acres (117,382 total) would be withdrawn from mineral entry than prescribed in Alternative A (213,069 acres). Except for those areas withdrawn, including portions or all of Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Area, Juniper Mountain, Lambert Table, Sinker Creek, and The Tules, other areas would potentially be adversely impacted by locatable mineral activities. Exploration and development would have a short-term and long-term adverse impact on plant communities, on scenic values, on wildlife, on special status plant and animal species and on watersheds, depending

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on the intensity of the activity. Compared to exploration, development would generally have a longer term impact on most of these resources. While mining claims are present within some areas (i.e., Cinnabar Mountain, Coal Mine Basin, McBride Creek, Squaw Creek), locatable mineral potential is generally rated as moderate in most of them due to their geology. However, three of the areas with existing claims have experienced historic or recent mining disturbance, and their plant communities and special status plant species (smooth stickleaf, Cusick's false yarrow, barren milkvetch, Owyhee clover, Malheur yellow phacelia) would be vulnerable to long-term impacts (roads, mineral extraction, heavy equipment), especially where disturbances less than five acres in size would not require a plan of operation. The overall long-term impact projected for locatable minerals activities by Alternative B as compared to the other alternatives would be adverse.

Alternative B proposes that a Recreation Management Action Plan be developed to assess the validity of all existing SRMAs and the need for the establishment of new SRMAs. Since Alternative B makes no specific proposals for either deletion or addition of SRMA designation, no specific impact assessment can be done. However, it is projected that Alternative B would have both a beneficial and adverse impact on the areas. If and when existing SRMAs are released from SRMA designation, they would be subject to other forms of impacting actions which would potentially cause greater disturbance than non-motorized recreational activities. In contrast, by not developing an SRMA, public use of a given area would potentially increase much more slowly, minimizing the habitat deterioration associated with development.

Alternative B proposes no specific rivers or river segments for inclusion in the National Wild and Scenic River System. However, the 66 miles of the East and South Fork Owyhee Rivers already designated by congress would be maintained in Alternative B. Alternative B does propose to maintain continued multiple recreation uses and establish designated equestrian, foot and OHMV trail systems within river segments should they be designated. Overall long-term impacts are projected to be adverse.

In Alternative B, a "Limited" OHMV designation would apply to all of the areas. However, because the definition of "Limited" in Alternative B is much less restrictive than that defined by Alternatives A, C, and D, adverse impacts are projected to be greater than in all other alternatives. The use of historic trails and sand washes area wide, along with the elimination of all seasonal use restrictions, would add substantially to the level of habitat and wildlife disturbance. The types of impacts identified in Alternative A also apply to Alternative B.

Conclusion

The overall impact of Alternative B on the areas is projected to be adverse. Emphasis on activity planning, monitoring, annual evaluation and review, and coordination with local and State government planning agencies to justify ACEC designation and management, would make on-the-ground protective management extremely difficult. Aside from this, major contributing change agents include increases in livestock AUMs, expanding OHMV activity with fewer access restrictions, habitat loss and disturbance from mining activities, reduced emphasis on special designations including ACECs and Wild and Scenic Rivers, vegetation manipulations including juniper removal, and rights-of-ways.

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Meeting The Objectives

Objective ACEC 1: Designate Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and apply special management to protect the values identified.

This objective would not be met, as 16 areas determined to meet the relevance and importance criteria for establishment as ACECs would receive no special management to protect their identified resources. In Alternative B, only those four areas with existing designations would receive special management protection. Even these areas would be vulnerable, given the increases in some types of uses and developments, and the proposal to annually review each existing special designation.

Social and Economic Conditions

Change Agents

Population and recreation growth, livestock grazing levels and social structure.

Population Impacts

Greater Idaho's population is projected to increase throughout the next 20 years. Population growth has been a dynamic force in the current economic growth in southwestern Idaho. Between 1990 and 1993, regional population has grown by 37,700 or 11.3% within the four-county region of Ada, Canyon and Owyhee Counties in Idaho and Malheur County in Oregon (Bureau of Economic Analysis, Regional Economic Information System). However, population growth has taken on new dimensions, including quality of life considerations, here in this latter part of the 20th century. Recent migration has been toward smaller urban or rural areas and away from the large overcrowded metropolitan areas. Quality of life factors such as lower taxes, less inflation, lower crime rates, economic boom and leisure and recreational opportunities are sighted as reasons for this migration trend. This has resulted in increased pressure on the public land to provide a socially acceptable mix of land uses; away from consumptive use toward more nonconsumptive or preservation and retention in the public domain. The Owyhee Resource Area will continue to see increased pressure as regional population growth from nearby Ada and Canyon counties drives demand for alternative, and often conflicting, uses of these public land resources. Thus, the present dynamic that is causing the change in the rural/urban interface will continue to put pressure on the historical use of the public land resources and BLMs management of those resources in the future..

The following impact analysis is based on the modeling of ranch budgets for typical ranch operations within Owyhee County and computer modeling using input/output analysis of the regional economy for Owyhee, County, Idaho as discussed in Chapter 3 and in the appendix. (See Appendix SOCE-2 for a short summary of the modeling technique used in this impact analysis.)

Ranch Level Impacts

Increases in the number of Animal Unit Months (AUMs) permitted for livestock grazing (96,676 AUMs to 150,145 AUMs, or 53,469 AUMs) will have positive economic impacts on the ranch community in general. Average income above operating costs under this alternative would increase for each ranch operation (see below).

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Ranch Operating Impacts

	Per Ranch Average	Total
Jordan Valley	$ 3,300	$121,200
Marsing	$ 12,900	$103,200
Bruneau	$ 231,500	$462,900
Total		$687,300

County Economy Impacts

Direct and indirect output into the economy would increase by $885,000 under this alternative. Regional income would increased by $295,000 and total employment would increase by 7.

County Level Impacts

Total Industry Impact	
Direct plus Indirect	$885,300
Total Value Added	$331,000
Total Regional Income	$295,200
Total Economic	$1,2116,300
Total Employment	7

Recreation Impacts

General recreation activity is projected to increase approximately 70% between 1998 and 2018. However, it is not suggested that the increased recreation activity would be in response to BLM actions, rather, the regional population growth would be the root cause of any additional recreational activity on the public lands in the planning area. Very little of this activity will translate into increased economic activity within the county since most goods and services associated with recreation activities within Owyhee County are purchased outside the county. In fact there may be added costs to Owyhee County's budget for increased search and rescue and law enforcement activities.

Social Impacts

Like Alternative A, this alternative should not have appreciable social impacts. This alternative should provide some stability to the ranch community and have the same affect on the rural communities since it allows for continuation of grazing activities at the present level.

Conclusion

Positive impacts are projected for the local/regional economy because of increases to regional output of goods and services, and employment. The impact is not projected to be significant enough to cause financial hardships for the local or regional infrastructure to handle increased demand. Social services and other factors that currently contribute to the quality of life locally and regionally would not be significantly affected.

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Alternative C

Air Resources

Change Agents

Prescribed burning, mining activities, national river designations, road construction, plow and seed operations and aerial pesticide/herbicide application.

Impact Analysis

A total of 64,400 acres are identified for possible prescribed burning over the next 20 years. Up to 9,000 acres per year would be treated. Individual burns would be limited to 3,000 acres. During these operations a one to two day localized decrease in air quality would occur. By limiting the size of the burn, allowing a time interval of 72 hours between burns, conducting burns when climatic factors are optimal for good dispersion, and coordinating with other air quality influencing actions in the area at the time of the burns (to reduce potential cumulative impacts), impacts from this action would not be substantial.

Mining operations have several sources of air pollutants. Sources of particulate (i.e., dust) emissions in mining operations include drilling, blasting, and ore collection in the mine pit, plus wind erosion from ore pits, ore loading into trucks, trucks moving over haul roads, and trucks dumping ore into piles, ore loading onto conveyors and ore crushing into small processing sizes, crushed ore screening and crushed ore smoothing, waste rock smoothing in waste piles and wind erosion from waste piles.
The active DeLamar Mine is currently the major source of these types of emissions in the resource area. Air quality impacts due to the Stone Cabin Mine are addressed in the Stone Cabin Mine EIS and will not be addressed in this document. Cumulative impacts of the DeLamar and Stone Cabin mining operations would have an adverse impact on local air quality in the area. Impacts projected from small scale mining operations would not be substantial due to the limited size and nature of these operations, although if in the same vicinity of the DeLamar and Stone Cabin sites they would add to the cumulative impact.

Designation of 163 miles of national rivers would result in eventual withdrawal of these reaches from mineral entry. This would preclude any impacts on air quality associated with mining or mineral exploration.

Impacts from road construction, plow and seed operations, and aerial application of pesticides/ herbicides would result in minor short-term impacts on air quality dependent on size of the operations and adherence to best management practices during the operations.

Conclusion

The overall impact of Alternative C on air quality would not be substantial.

Meeting the Objectives

Objective AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

If proper procedures are followed and BMPs implemented the objective would be met in Alternative C.

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Soil Resources

Change Agents

Livestock grazing, livestock water developments, off-highway motorized vehicle (OHMV) activities, fluid mineral and locatable mineral activities, rights-of-way, special designations and vegetation treatments.

Impact Analysis

In Alternative C, it is estimated that broad based erosion rates could decrease slightly on the rhyolite/basalt plateaus and Owyhee (mountain) uplands. The low elevation areas draining into the Snake River could exhibit a more pronounce decrease in broad based erosion rates. These broad based decreases in soil erosion would be primarily due to the increase in vegetative density and composition (which will result in increased canopy and litter cover and reestablishment of microbiotic soil crusts) projected over the next 20 years as a result of the grazing management and OHMV management actions under this alternative.

Projected livestock stocking levels (39% reduction in AUMs) and grazing management practices (Implementation of intensive grazing systems and conversion to winter grazing within the Snake River plains) over a 20-year period could result in improved streambank stability and a decrease in the following impacts: soil compaction, soil disturbance, microbiotic soil crust disturbance, and vegetative degradation. Increased watershed function and soil productivity could occur.

Development of livestock water projects could result in degradation of the soil resource at and in the general vicinity of theses sites. This degradation would be in the form of soil compaction, mechanical disturbance of the soil surface by hoof action, and loss of vegetative protective cover/litter. The probability of this occurring is high. By selecting sites that are not in compaction prone soils some of these impacts could be mitigated.

Impacts on the soil resource in the form of soil erosion, loss of productivity, and soil compaction from off-highway vehicle (OHMV) activities could decrease in Alternative C. This would be due to changing the "Open" designation to Limited - Level 4 and Level 5 and some Level 6 designations which would eliminate all cross-country OHMV activity within the area. This could be especially beneficial in the Owyhee Mountains, South Mountain and Juniper Mountain area where OHMV activity is rapidly increasing. Changing portions of the Owyhee Front SRMA from a Limited - Level 1 to a Limited - Level 5 and Level 6 designation would also occur. Impacts (as projected for Alternative A) could continue and probably increase within the Owyhee Front SRMA as use levels increase. OHMV use could cause mechanical disturbance to the soil surface and destruction of the protective vegetative cover (this includes vascular plants and soil stabilizing microbiotic soil crusts). Mechanical disturbance from OHMV activities could result in destruction of soil aggregates, formation of channels, and a sloughing of washes. More heavily utilized trails would widen and become more deeply moguled and rutted as use levels increase. With the projected increase in casual and competitive OHMV activities mitigating measures would be needed to protect the soil resource (especially on the highly erosive soils).

Fluid mineral and locatable mineral activities could cause substantial soil erosion (and subsequent sediment delivery and productivity losses) depending on the size and scope of the project. Access road construction, drill pad installation, mineral extraction actions, and other surface disturbing activities would be the primary causes. Impacts on the soil resource from these actions would be localized to the specific area of disturbance. The extent of these impacts would be determined by the amount of activity, advances in mining and mitigation techniques, type of operation, location, and other factors. Overall, impacts on soils attributed to mineral activities over the next 20 years is projected to increase.

Right-of-ways could cause varying degrees of disturbance in the resource area. No significant impact on soils is projected from construction of pipelines, powerlines and telephone lines after construction is finished. Roads, especially unsurfaced roads, would cause both short and long-term erosion problems.

Designation of 163 miles of national rivers would result in withdrawal of about 52,160 acres of associated lands from mineral entry and avoidance of potential impacts associated with these activities as projected above in the minerals activities analysis. It would also result in strict limitations on vehicle travel and associated impacts as projected in the above OHMV activities analysis. This would result in a beneficial impact on the soil resource.

Vegetation treatments on an estimated 91,960 acres (prescribed burning, 64,400 acres; burn and seed, 10,560 acres; and woodland harvest, 17,000 acres) according to established standards and the Owyhee Juniper Woodland Management Plan is proposed in Alternative C. Prescribed fire would be the major treatment method most often used. Other treatment methods would include chemical and mechanical. The projected acreage for chemical and mechanical treatments is about 6,400 acres over the next 20 years. Sagebrush treatment acreage would be 34,100 acres with no seeded acres proposed in this alternative. Vegetation treatments would cause varying degrees of disturbance in the resource area. This would depend on the type and size of the treatment (and, over the long term, the success). By following established BMPs, impacts from these treatments could be reduced. Soil erosion (by wind and/or water) and subsequent sediment delivery and loss of productivity would be a short-term impact. Ash from prescribed fire treatments may act as sediment (moved by either wind and/or water) and affect water quality. After successful revegetation occurs a long-term improvement in watershed condition would result.

Conclusion

The overall impact of Alternative C on the soil resource would be beneficial. Broad based erosion levels could decrease. Streambanks could recover in many areas where grazing systems and protection are implemented. OHMV activities would be managed to better protect the soil resource.

Meeting the Objectives

Objective SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

It is estimated that this objective would be met, or making significant progress toward meeting it, on over 80% of the resource area in Alternative C. This estimate is based on the projection that the actions implemented under this alternative would provide adequate amounts of ground/canopy cover (determined on an ecological site basis) to support infiltration, maintain soil moisture storage, soil productivity, and stabilize soils. Also projected is the decrease in soil compaction and surface disturbing activities which will support soil permeability rates.

Objective SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

It is estimated that this objective would be met, or making significant progress toward meeting it, for over 75% of these situations (streambanks being a major source) once effective management systems/protection have been implemented under this plan. Many of the existing roads and trails (particularly those that are on soils with high erosion hazard ratings) would continue to be a source of localized accelerated soil erosion. By limiting OHMV activity localized accelerated soil erosion from this source would be greatly reduced. The requirement/implementation of BMPs at the individual project planning level will help prevent future problems.

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Water Resources

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in pastures containing riparian areas in unsatisfactory condition, implementation of intensive grazing systems and conversion to winter grazing within the Snake River Plains would result in significant long-term improvement in riparian condition as described in Alternative A. Over 20 years, as riparian condition improves, an estimated 90% of all BLM riparian miles throughout the resource area would achieve satisfactory and proper functioning conditions if grazing were the only impact analyzed. Water quality would improve to meet water quality standards on these streams in Alternative C.

Point and nonpoint source mining impacts on water quality would be similar to Alternative A. Impacts from historic mining activities would not change from the current level.

OHMV impacts on water quality would decrease in Alternative C as about 101,000 acres would be classified as "open" or having few limitations on OHMV use. Adverse impacts consisting of upland erosion and sedimentation of stream channels, as described in Alternative A, would occur primarily along the Owyhee Front.

Fewer impacts resulting in increased precipitation runoff and reduced infiltration, as described in Alternative A, would occur as the number of prescribed burns proposed decrease significantly over Alternative A. Prescribed burns would be limited to a maximum of 9,000 acres annually with about 64,400 acres burned over the next 20 years.

Water rights would be obtained on all water development projects. Minimum instream flow applications would be filed on appropriate high value streams.

Conclusion

Water quality would improve significantly as grazing systems are implemented to improve riparian/aquatic conditions on BLM stream miles. Implementation of livestock grazing systems combined with other management actions would result in an estimated 85% of all BLM riparian miles being in proper functioning and/or satisfactory conditions after 20 years. Elimination of excessive hot-season livestock grazing would allow riparian vegetation structure to improve. These changes would result in more stream shading, helping to maintain cooler water temperatures. State water quality standards would be met on these BLM stream miles over a 20-year period.

Meeting the Objectives

Objective WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

This objective would be met on an estimated 85% of all BLM riparian miles in Alternative C.

Objective WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

In Alternative C, water uses on all streams would be provided for through compliance with State water law and in accordance with State licensing processes.

Vegetation

Change Agents

Livestock grazing, vegetation treatments, weed control, livestock water developments, fencing, wild horse management, OHMV activities, and mining activities.

Impact Analysis

Under Alternative C, the primary beneficial impacts for the vegetation resource will be as a result of adjustments in livestock grazing practices. Adjustments in livestock grazing season-of-use would have beneficial impacts on vegetation. Changing the season-of-use on the Snake River Plain from early spring use to fall/winter use would allow the vegetation to maximize production, gain vigor, and establish seedlings. Forage removal is less injurious at this time as compared to the active growth and food storage phases of spring.

Suspending livestock use by July 15 in those pastures where riparian areas are in unsatisfactory condition would have beneficial and adverse impacts on vegetation. Early suspension of livestock use would provide for regrowth of riparian vegetation which would allow for improvement in these areas. A shortened grazing system, with no increase in livestock numbers, would also benefit upland vegetation by providing more rest and options for other grazing systems than with the current situation.

Grazing prior to July 15 has the potential to adversely impact native upland vegetation, especially in those areas in an early seral stage or located below 3,500 feet elevation as livestock use would occur during the plant's active growth and food storage phase. Although most plants are sensitive to grazing during this time period, studies have shown that bluebunch wheatgrass is extremely sensitive to grazing during active growth (Anderson, 1991). This early use has the potential to prevent substantial improvement on those range sites where bluebunch wheatgrass is the predominant grass species. These sites cover over 50% of the resource area. However, grazing systems are designed to mitigate these impacts through seasonal deferment or scheduled resting of pastures.

When any species or class of vegetation is allowed to dominate a large area, ecological diversity, forage production, and plant vigor will be adversely impacted. At the same time if one species or class of vegetation is eliminated or substantially reduced over a large area similar impacts could be projected. Prescribed burning and juniper woodcuts are tools for treating vegetation to maintain the preferred mix of habitat components or to meet specific management objectives or desired plant communities within a given area. In Alternative C, 34,100 acres of sagebrush/grass communities and 47,300 acres of juniper are identified for treatment.

Short-term impacts (2-3 years) from prescribed burns (64,400 acres) and juniper woodcuts (17,000 acres) would be adverse as vegetative structural diversity is decreased by reducing or eliminating the predominant species (sagebrush or juniper) at each site. Long-term effects would be beneficial by improving ecological diversity, ecological site condition, forage production, and plant vigor of these selected areas as understory vegetation communities become restored in treated areas.

Beneficial impacts are projected for forest land biodiversity by retaining 32,600 acres of remnant Douglas-fir forests within the resource area.

Noxious weed control would have a slight beneficial effect on vegetative diversity by maintaining the integrity of native plant communities by reducing or eliminating undesirable species. Beneficial impacts, through noxious weed control, are also projected in those areas where OHMV use occurs. OHMV activity has the potential to remove vegetation which then allows noxious weeds to become established at those sites.

Development of 46 livestock water projects would have site specific adverse impacts (short-term and long-term) to vegetation through increased grazing pressure and livestock concentration near available water. Developing springs and pipelines could also result in reduced water availability at spring sources or streams resulting in degraded riparian/wetland habitat. These adverse impacts could be partially offset by reduced grazing on vegetation in other portions of the allotment.

Construction of 24 miles of riparian/wetland exclosure fences would have beneficial impacts within these areas. By excluding livestock, these exclosure fences would allow for improvement within these riparian/wetland areas.

Construction of 52 miles of pasture division fences would have a beneficial impact on vegetation by allowing grazing systems to be implemented that could provide rest or deferment within an allotment. Additional pastures should then provide improved livestock distribution and utilization levels within these areas.

Adverse impacts are projected from these fences due to livestock trails that normally become established along fence lines and the potential for construction and maintenance roads along these fences. These roads then have the potential to become areas for OHMV activity. Overall, impacts from these fences are projected to be beneficial.

By removing wild horses from the Sands Basin and Shares Basin allotments (with the exception of the Squaw Creek Canyon), livestock would have no competition for forage from wild horses in these two allotments. Beneficial impacts on vegetation are projected as plants in these areas would no longer be grazed year-long. Current grazing systems could then provide complete rest or deferment in these areas, benefiting vegetation.

Exclusion of livestock from about 6,393 acres of public land located within the Wild Horse Herd Management Areas (HMAs) would have beneficial and adverse impacts on vegetation. Wild horses, with primary use of the Rats Nest and a portion of the Shares Basin allotment (Squaw Creek Canyon), would have no competition for forage from livestock. Improved animal distribution is projected as wild horses would not congregate but would cover the entire area they are confined to.

Adverse impacts on vegetation could be projected with horse use as plants would be grazed year-long with no provision for rest or deferment. However, by gathering wild horses when resource monitoring indicates that a thriving ecological balance is not being maintained, this impact could be mitigated.

About 120 miles of trails and sand washes would not be available for OHMV activity, allowing vegetation to reestablish within these "Limited" use areas. Alternative C would also change 420,493 acres of "Open" designation to Limited - Level 4 and Level 5 and some Level 6 designations which would eliminate all cross-country OHMV activity. This would benefit vegetation through reduced physical damage to the vegetation.

Alternative C would result in some benefits to vegetation as projected but adverse impacts from unauthorized OHMV use on 101,612 acres within the Owyhee Front SRMA (Limited - Level 1) would continue to increase through damage to foliage, root systems, and seedlings and uprooting of small plant cover and disruption of root systems of larger plants by sheer stress induced in the soil (Wilshire, Shipley & Nakata 1978). This disturbance would then cause loss of native vegetation, increased soil erosion, and invasion by noxious weeds. The level of use and associated impacts could increase at a more rapid rate in this area as restrictions on OHMV use are implemented in the remainder of the resource area. Overall impacts of OHMV activities in Alternative C are projected to be beneficial, but only if OHMV use in the "Closed" and "Limited" areas is controlled through enforcement.

Mineral activities have the potential for adverse impacts on vegetation on a site-specific basis. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations. Refer to the Stone Cabin Mine EIS for a detailed analysis of mining impacts.

Conclusion

Alternative C would have a beneficial impact on the vegetation resource as a result of the potential vegetation manipulations, adjustments in season-of-use in the Snake River Area, changes in OHMV designations, suspending livestock use by July 15 each year in those pastures where riparian areas are in unsatisfactory condition, and adjusting grazing preference within the resource area from the initial stocking level of 135,116 AUMs to 87,121 AUMs at the end of twenty years.

Beneficial impacts are projected on upland vegetation in terms of improved plant vigor, increased frequency and cover of key perennial species, and upward vegetative trend. These beneficial impacts should result in some changes in ecological conditions within 20 years. However, factors such as climate, soils, competition from other species, available sources of seed on site, livestock season-of-use, and livestock stocking levels would determine the amount of time needed to move from one condition class to the next. Even with complete livestock removal succession can be slow, sometimes requiring 20-40 years (Sanders and Voth 1983 and Tisdale, Hironaka, and Fosberg 1969).

Meeting the Objectives

Objective VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

This objective would be met in Alternative C with the combination of a minimal level of vegetation treatment and changes in livestock management. C. The table below outlines the projected changes in ecological status for this alternative. These projected changes were based on the prescribed burns and woodcuts along with the reduced stocking levels and adjustments in season-of-use proposed under this alternative.

	Baseline		20-Year Projection	
Seral Stage	Acres	Percent	Acres	Percent
Early seral	565,830	43%	510,495	39%
Mid seral	555,130	43%	487,420	38%
Late seral	137,797	11%	241,137	19%
PNC	2,203	<1%	21,908	2%
Treated	37,814	3%	37,814	3%
Total	1,298,774	100%	1,298,774	100%

Objective FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Alternative C would meet the objective of retaining forestland biodiversity and recognizes the value of dead material for the overall ecological health of forest environments.

Objective FORS 2: Use juniper harvesting to help achieve a desired plant community.

Alternative C would meet the objective of achieving desired plant communities in the resource area by controlling juniper by harvest methods on 17,000 acres, by prescribed burning 30,300 acres of juniper dominated sites and by burning an additional 34,100 acres of mostly sagebrush dominated sites being encroached upon by juniper, within 20 years.

[redacted]

Riparian-Wetland Areas

Change Agents

Livestock grazing, mining activities, OHMV activities, livestock water developments and land tenure adjustments.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint grazing, implementation of intensive grazing systems and conversion to winter grazing within the Snake River Plains would result in long-term improvement in riparian condition. Over 20 years, an estimated 90% of all riparian miles throughout the resource area would achieve satisfactory or proper functioning condition in Alternative C if grazing were the only impact analyzed.

Adverse mining impacts on riparian areas would not increase in Alternative C. Nonpoint source impacts from historic mining operations would continue as described in Alternative A.

OHMV impacts on riparian areas would decrease in Alternative C as about 101,000 acres would be classified as "open" or would have few limitations on OHMV use. OHMV activities would result in both upland and riparian area erosion, as described in Alternative A, as vegetative cover and streambank stability are decreased. Impacts would occur primarily along the Owyhee Front.

Development of stockwater facilities would have the same type of adverse impact on riparian areas as described in Alternative A. The change from Alternative A in the number of stockwater developments include 32 fewer springs, 8 less reservoirs , and a 19 mile increase in pipelines.

Land tenure adjustments to consolidate public lands would generally benefit riparian resources. Newly acquired lands with riparian/aquatic values would usually be managed under special land use restrictions which benefit these values.

Conclusion

Implementation of grazing systems would result in significant improvement in riparian conditions. Major improvement would occur in woody vegetation communities. Implementation of grazing systems, changing utilization patterns, and ending excessive hot-season grazing combined with other management actions will result in satisfactory and/or proper functioning condition on an estimated 85% of all riparian miles. Elimination of excessive hot-season grazing would allow riparian vegetation to establish and improve in composition, vigor, density and structure. The resulting riparian zone would be more efficient in its buffering and filtering function.

Meeting the Objectives

Objective RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

This objective would be met on an estimated 85% of the riparian miles in Alternative C.

[redacted]

Wildlife Habitat

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activities, OHMV activities, recreation use, national river designations, wildlife water developments, wildlife habitat exclosures, waterfowl nesting structures, land tenure adjustments and land use authorizations.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in pastures containing unsatisfactory riparian condition, exclusion of livestock grazing from 23 miles of riparian habitat, an initial 36% reduction in licensed AUMs, implementation of intensive grazing systems and conversion to winter grazing within the Snake River Plains is projected to result in the improvement of an additional 70% (456 miles) riparian habitat from unsatisfactory to satisfactory condition (a total of 85% or 554 miles in satisfactory condition) and improvement of most upland habitats. Benefits would include increased quality and quantity of late season forage, cover and water within most riparian and upland habitats, especially during the typically stressful late summer season. Livestock utilization of bitterbrush and other browse species would decrease significantly since most livestock use of browse typically occurs during mid-to-late summer after herbaceous species have cured and become less palatable. In areas of past heavy browse use by livestock, lighter use would result in increased browse vigor and forage availability for big game species, in the short term. In the long term, shrub species are generally projected to decrease as ecological condition advances and as fire frequency and acreage increases due to the increasing volume of ungrazed fine fuels after July 15. The transition to a later seral stage could result in a gradual decline in deer, sage grouse and a diversity of other wildlife species which are closely tied to shrub-dominated habitats although this could be partially or entirely offset by the increase in plant species diversity and overall increase in forage availability. It could also result in a possible increase in the number of pronghorn, bighorn sheep and other species which are better adapted to more open habitats with a lesser shrub component. This is a broad generalization however, and any major shifts in wildlife populations would depend upon a variety of factors including fire frequency and the level of fire suppression.

Adverse impacts would continue to result from early season grazing including competition for early season forage; disturbance and reduced cover within important deer and pronghorn fawning habitats and waterfowl, sage grouse and nongame bird nesting and brood-rearing habitats and continued early season disturbance of most riparian/aquatic habitats. In areas where livestock use has not been excessive, it could result in reduced browse forage availability if wildlife use is not high enough to stimulate good leader growth and keep browse within reach of big game. Conversion to winter livestock grazing within the Snake River Plains could lead to some increased forage competition between cattle and wintering big game, especially pronghorn, although, long-term improvement in habitat would result in a net increase in forage production and availability.

The types of impacts associated with livestock water developments and fences would be similar to those projected for Alternative A. However, the fewer number of both type projects along with reduced AUMs and shortened grazing seasons on many allotments would combine to reduce the degree of habitat degradation associated with these projects in Alternative C.

The combination of prescribed burning and woodcutting would result in an estimated 35,200 acres of juniper woodland (15,200 acres less than Alternative A) and 20,500 acres of sagebrush habitat (19,100 acres less than Alternative A) eliminated in Alternative C. See Chapter IV - Introduction - Changes in Ecological Status for assumptions used. The types of impacts would be similar to those projected for

[redacted]

Alternative A except in those pastures where the July 15 end-of-grazing-season constraint is in effect. Treatments within these pastures would recover more quickly from the initial treatment impacts of reduced structural diversity and would provide higher quality wildlife benefits as a result of rest from late season use. In the short term, mule deer and a diversity of other species would benefit from the browse forage and structural diversity which would be retained within the 57,200 acres of juniper/sagebrush habitat protected from burning in Alternative C as compared with Alternative A. The fewer acres of sagebrush treatment could also be of direct benefit to sage grouse and other sage-dependent species, although, in some cases, treatments could actually benefit these species. The overall, long-term impact of this level of vegetation treatments is projected to be mostly beneficial, although, impacts on some species would be adverse.

Impacts of mining related activities are projected to be the same as those projected for Alternative A. Mineral exploration and development would have an increasingly detrimental impact on most wildlife species and habitats as habitat is disturbed over the next 20 years. The extent of habitat impacts would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and usually, long-term habitat loss at exploration and mining locations, increased public access associated with exploration, assessment and mining roads and ways and indirect disturbance to wildlife within the vicinity of mines and exploration operations. See Map LOCM-2 for locatable mineral potential.

In Alternative C about 32,000 acres of the Owyhee Front SRMA within the Wild Horse Herd Management Area, 10,000 acres within the Snake River Birds of Prey SRMA near Fossil Butte and a similar sized area within pronghorn winter range west of Murphy would be changed from a Limited - Level 1 to a Limited - Level 5 designation. This would result in closing of about 120 miles of trails and sand washes within these areas. Benefits that could be derived from these changes include reestablishment of vegetation within closed trails and washes, resulting in improved forage and cover for a diversity of species and reduced OHMV disturbance of wildlife in the vicinity of closed trails and washes. Alternative C would also result in the changing 420,434 acres of "Open" designation to Limited - Level 4 and Level 5 and some Level 6 designations which would prohibit all cross-country OHMV activity within the area. This could result in reduced physical damage to wildlife habitat throughout the resource area and potentially reduce wildlife disturbance by OHMVs, especially during hunting seasons. Although management of OHMV activity should improve in Alternative C, it is projected that adverse impacts on most wildlife habitats and populations would continue to increase as a result of increasing use levels and an inadequate number of personnel to enforce OHMV regulations, especially within the Owyhee Front SRMA.

About 163 miles of national river designations including the four forks of the Owyhee River, Deep Creek, and portions of Nickel Creek and Current Creek would be closed to all OHMV activity with the exception of designated crossings. This would result in long-term protection of aquatic, riparian and canyon habitats and dependant wildlife species.

Other recreation program management actions in Alternative C include construction of the Guffey Butte and Jump Creek nonmotorized trails and establishment of two equestrian trailheads. Human activity on the Guffey Butte trail, designed to redirect current and projected increased use around Guffey Butte at a lower elevation, could result in disturbance to a diversity of raptor species nesting on the butte including golden eagles, prairie falcons and ferruginous hawks. Initial development of Celebration Park has already resulted in an increase in hiking activity on Guffey Butte during the nesting season and with development of this trail, the level of use would increase dramatically. This could possibly lead to nest failures or total abandonment of this area by some nesting raptors including ferruginous hawks.

Construction of the Jump Creek trail would also increase recreation use of Jump Creek Canyon possibly resulting in increased disturbance to cliff-nesting raptors and a large diversity of other species associated with canyon/riparian habitats. Currently, much of the upper canyon is nearly inaccessible and relatively undisturbed. Both short-term and long-term impacts of these trails is projected to be adverse.

Establishment of two equestrian trailheads would result in increased levels of horseback riding and camping use within the Owyhee Mountains. This would result in deterioration of habitat along the trails and camp sites and some disturbance to wildlife within the immediate vicinity of trail and camps. Overall short-term and long-term impacts from trailhead establishment are projected to be slightly adverse.

Designation of 163 miles of national rivers would result in withdrawal of these reaches from mineral entry and avoidance of potential impacts associated with mineral exploration and mining. It would preclude any impacts on wildlife or wildlife habitat associated with mining activities. It would also result in strict limitations on vehicle travel and associated impacts as projected above. Both short-term and long-term impacts are projected to be beneficial.

Under this alternative a total of 235,290 acres of public land would be designated as ACECs. This would include the retention or expansion of four existing ACECs and ONAs and the addition of 13 other ACECs and would generally benefit the majority of wildlife species by restricting or prohibiting a wide range surface disturbing activities in various combinations. Although some restrictions could limit management options that could benefit some species (i.e., some vegetation treatments, exclosure fencing, etc.), the overall impact is expected to be positive.

The types of impacts from wildlife project developments would be the same as for Alternative A. However, because of the emphasis on improvement of riparian habitats by either rapid implementation of suitable grazing systems or implementation of the July 15 end-of-grazing-season constraint, 113 fewer miles of habitat exclosures would be constructed in Alternative C. This would result in less disturbance and fewer impediments to wildlife movement but would also result in slower improvement and less overall improvement within these 113 miles of mostly riparian habitat which would have received total exclusion in Alternative A. Short-term and long-term impacts of these actions would still be beneficial. Impacts of land tenure adjustments would be the same as those projected for Alternative A.

Impacts of land use authorizations would be the same as those projected for Alternative A.

Conclusion

The overall impact of Alternative C is projected to be beneficial for most species primarily based upon the substantial reduction in livestock grazing season and AUMs and conversion of most of the Snake River Plains to winter grazing. Riparian/wetland habitats would experience the most significant and rapid improvement which would lead to improved habitat and increased numbers of a large diversity of wildlife species. Other management actions that would benefit wildlife include some vegetation treatments, more restrictive OHMV management throughout most of the resource area, national river and ACEC designation, and development of wildlife water projects, nesting structures and habitat exclosures. Adverse impacts would include increased emphasis on early season grazing within important spring wildlife habitats such as deer and pronghorn fawning habitat, waterfowl and nongame bird nesting habitat, sage grouse nesting and brood rearing habitat; livestock winter use of big game winter habitat during harsh winters; increasing OHMV activity especially within the Owyhee OHV SRMA; and recreation facility development. In the long term, upland habitats would slowly shift to a later ecological stage with a concurrent shift in wildlife species composition to one adapted to a more open landscape with less tree and shrub cover and more grasslands.

Meeting the Objectives

Objective WDLF 1: Maintain or enhance the condition, abundance and distribution of plant communities and special habitat features required to support the large diversity and desired numbers of wildlife inhabiting public lands within the Owyhee Resource Area.

This objective would be met. Major contributing change agents would include significant reductions in AUMs and length of the grazing season pending implementation of acceptable grazing systems and some vegetation treatments. Other benefits would be derived from more restrictive OHMV regulations, ACEC and national river designations, wildlife water developments, habitat exclosures, cooperative farming agreements and some land tenure adjustments. Even though some valuable woody vegetation will be lost to vegetation treatments, expected increases in the size and frequency of wildfires and the gradual advance of most ecological sites to later seral stages, habitat for most wildlife species should improve as cover, diversity and vigor of most upland and riparian vegetation is enhanced.

Fishery Habitat

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in pastures containing unsatisfactory condition fish habitat, implementation of intensive grazing systems and conversion to winter grazing within the Snake River Plains would result in long-term improvement in riparian condition. Over 20 years, as riparian condition improves, an estimated 90% of all BLM stream miles throughout the resource area would achieve satisfactory fish habitat condition if grazing were the only impact analyzed. Improved riparian vegetation condition and streambank stability would result in long-term improvement in fish habitat condition and aquatic species biodiversity as described in Alternative A.

Point and nonpoint source mining impacts on fish communities and biodiversity would not increase in Alternative C. The major impacts would be sedimentation and acid rock drainage from historic mining operations as described in Alternative A.

OHMV impacts on fish communities and aquatic biodiversity would decrease in Alternative C as 101,000 acres would be classified as "open" or would have few limitations on OHMV use. About 19% of the area would be closed to OHMV use. OHMV activities would result in a loss of ground cover which would lead to increased upland erosion and fine sediment deposition in streams as described in Alternative A. Adverse impacts would occur primarily along the Owyhee Front.

Adverse impacts on fisheries habitat from prescribed burns would decrease in Alternative C. The primary impact on aquatic communities would be increased sedimentation as described in Alternative A. Prescribed burns would be limited to a maximum of 9,000 acres annually with about 64,400 acres burned over the next 20 years.

Land tenure adjustments to consolidate public lands would generally benefit aquatic resource values. Newly acquired lands with aquatic values would be managed with special land use restrictions which benefit these values.

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Conclusion

The effects of Alternative C on native fish communities and aquatic biodiversity would be beneficial. The condition of aquatic species habitat would improve over the short term and long term. Elimination of excessive hot-season grazing would improve vegetative cover, structure, and streambank stability. Over 20 years, an estimated 85% of all BLM stream miles would be in satisfactory fish habitat condition.

Meeting the Objectives

Objective FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

This objective would be met on an estimated 85% of all BLM stream miles in Alternative C.

Objective FISH 2: Improve reservoir fisheries when appropriate, in consultation with State agencies and adjacent landowners.

This objective would be met on the majority of reservoirs in Alternative C.

Special Status Species

Special Status Plants

Change Agents

OHMV activities, livestock grazing, mining activities, vegetation treatments, livestock water developments, fencing, recreation use, land use authorizations, land tenure adjustments, ACEC designations and national river designations.

Impact Analysis

In Alternative C, about 32,000 acres of the Owyhee Front SRMA within the Wild Horse Herd Management Area, 10,000 acres within the SRBOPNCA near Fossil Butte, and a similar sized area within pronghorn winter range west of Murphy would change from a Limited - Level 1 to a Limited - Level 5 and Limited - Level 6 OHMV use designation. This would result in closing about 140 miles of trails and sand washes within these areas. Benefits to be derived would include elimination of OHMV disturbance of several special status plants and their habitat in the vicinity of the closed trails and washes. These species include Cusick's false yarrow, biennial princes plume, annual brittlebrush, white eatonella, Janish's penstemon, Mulford's milkvetch, white-margined wax plant, and Snake River milkvetch.

Alternative C would also result in changing 420,434 acres of "Open" OHMV designation to Limited - Level 4 and Level 5 and some Level 6 designations which would eliminate cross-country OHMV activity. This, and the "Closed" area around the Owyhee Canyonlands, would result in reduced disturbance of the special status plant populations and their habitat that occur in these areas. While the overall impacts of the OHMV designations identified in Alternative C are projected to be beneficial, adverse impacts on special status plants within the remainder of the resource area would continue to increase as projected for Alternative A because of rapidly increasing use levels, particularly in the Limited - Level 1 area of the Owyhee Front.

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A 36% reduction in AUMs, implementation of intensive grazing systems, exclusion of 14,274 acres from livestock grazing, and conversion to winter grazing within the Snake River geographic reference area, is projected to have an overall beneficial impact on most special status plants. As upland plant communities advance their ecological condition, populations of associated special status plants are projected to stabilize and could potentially increase. Implementation of the July 15 end-of-grazing-season constraint in pastures containing unsatisfactory riparian conditions would probably benefit Hall's rush, American woodsage, and rattlesnake stickseed, three species that are restricted to riparian areas, moist canyon habitats, or wetlands. It would also benefit the threatened Ute ladies' tresses, should it be found to occur in this area. The impacts of livestock associated range projects are discussed separately below.

Mining activities would have the same type of long-term adverse impacts on special status plants as projected for Alternative A, but impacts would occur on fewer acres since additional areas would be restricted or closed to mining activities in Alternative C. These restricted or closed areas are within the boundaries of special designation areas including ACECs, RNAs and ONAs. Species that would benefit in Alternative C include smooth stickleaf, Malheur yellow phacelia, dimeresia, Cusick's false yarrow, Simpson's hedgehog cactus, and barren milkvetch. Adverse impacts would primarily be in the form of loss of habitat and direct destruction of individuals and populations with the extent of impacts generally determined by the amount of activity.

In Alternative C, 47,300 acres of juniper are identified for removal compared with 72,700 acres in Alternative A. The acreage identified for cutting is the same for both alternatives (17,000 acres), while acres recommended for burning would be decreased by nearly 45% (to 30,300 acres) in Alternative C. Because only four of the 31 special status plants known from the resource area are sometimes associated with the western juniper vegetation type (Osgood Mountains milkvetch, least phacelia, Simpson's hedgehog cactus,, dimeresia), most species would be unaffected by juniper removal. The types of impacts on these four species would be similar to those projected for Alternative A, however the number of acres recommended for treatment and therefore potential adverse impacts on special status plants is significantly lower.

Sagebrush treatment is identified on a total of 34,100 acres in Alternative C, about 31,800 acres fewer than in Alternative A. Only prescribed burning of sagebrush is identified in Alternative C, with no post-burn seeding projected. Impacts on special status plants would be similar to those described in Alternative A for prescribed burns alone. The adverse impacts projected for burning and seeding in Alternative A would not occur in Alternative C. The overall impact of sagebrush treatments on special status plants identified in Alternative C are projected to be none to somewhat beneficial.

Livestock water development impacts are projected to be similar to those for Alternative A. Livestock reservoirs (11), pipeline miles and associated troughs (22 miles), and spring developments (13) could result in long-term indirect adverse impacts on some special status plant species, primarily by moving livestock into areas that were previously little used. Due to the greater number of pipeline miles identified in Alternative C, adverse impacts are projected to be slightly higher than in Alternative A. While direct impacts on special status plants depend upon exact project locations, in general, water development impacts are projected to be minimal, since site examinations would be conducted prior to project approval. Thirty-two fewer springs and eight fewer reservoirs are identified in Alternative C than in Alternative A. In some cases, special status plants could benefit by improved dispersion of livestock, when the development facilitates the movement of livestock away from rare plant populations.

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As projected in Alternative A, the impact of 52 miles of pasture fence and 24 miles of exclosure fence construction on special status plants would be adverse if it results in livestock concentrating within special status species habitat. In most cases, direct adverse impacts would be avoided by conducting field examinations prior to project approval. Fencing could benefit special status plants when the fence improves livestock distribution and relieves pressure on their habitat. In Alternative C, the risk of causing indirect adverse pressures on special status plants is projected to be less than in Alternative A due to the 27 fewer miles of pasture fence in Alternative C.

Development of additional recreation sites and equestrian and hiking trailheads prescribed in Alternative C would increase use and associated human disturbance at these and adjacent areas. Impacts on special status plants would be similar to those in Alternative A except that the overall impacts would potentially cover a larger land area (36,036 additional SRMA acres in Alternative C). The potential for special status plants to be adversely impacted at trailheads and recreation sites is low because of the field exam procedure prior to any development. However, long-term adverse impacts on adjacent unsurveyed areas are projected as increased use would cause deterioration of habitat and result in the spread of exotic plants into native habitat, including the habitat of special status plants. The long-term impact on special status plants is expected to be slightly more adverse than under Alternative A.

The overall impact from land use authorizations on special status plants would be the same as for Alternative A. Prior to approval and issuance of any right-of-way, lease, or permit, site examinations for special status plants would be conducted. While adverse impacts could occur if examinations were done at an inappropriate time of year, generally there would be no direct impact. However, because land use authorizations could result in substantial surface disturbance, special status plants could be indirectly impacted by fragmentation of the overall habitat and the introduction of exotic species into disturbed areas.

Land tenure adjustments would have a slightly more beneficial impact on special status plants than those projected for Alternative A. Adjustments would generally be beneficial due to the Bureau's policy on disposal of special status species. Most adjustments result in acquisition of high quality habitat or other significant biological resources, including special status species. Many of these adjustments also result in the consolidation of public ownership in ACECs, WSAs, and national river corridors, where special status species management capabilities are more favorable.

Designation of 17 areas as ACECs, RNAs and ONAs would have a long-term, highly beneficial impact on special status plant species, with numerous plant populations given special management protection within the boundaries of those designated areas.

The impact of 163 miles of national river designations is generally projected to be slightly more beneficial than Alternative A. Designation would result in withdrawal of these reaches from mineral entry and avoidance of potential impacts associated with mining. It would also result in vehicle access limitations and commercial recreation permitting, limiting impacts associated with these actions. Because visitor use is projected to increase regardless of designation, several special status plants found within the river canyons and adjacent areas could be adversely impacted, primarily by trampling in areas of concentrated use, such as campsites. These include rattlesnake stickseed, dimeresia, inch-high lupine, American wood sage and Simpson's hedgehog cactus. While long-term adverse impacts on these five species could occur, the overall long-term projection for Alternative C is beneficial for special status plants.

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Conclusion

The overall impact of Alternative C on special status plants is projected to be beneficial. Management actions that would benefit special status plants include the more restrictive OHMV management strategies; some land tenure adjustments; designation of 17 areas as ACECs or ONAs; and national river designations. Adverse impacts would continue as a result of mining related activities, increasing levels of OHMV activity, and to some degree, livestock grazing.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

As discussed in Alternative A, the limited availability of baseline inventory and monitoring data for many special status plants makes it difficult to accurately project impacts from the management actions identified in Alternative C. While the identified management in Alternative C would have a beneficial impact overall and would facilitate meeting the objective for some special status plants, the projected 74% increase in OHMV activity over the next twenty years, and the unpredictability associated with mining activities, could preclude meeting the objective for some plant species, particularly in the Snake River and northern tip of the Jordan Creek geographic reference areas.

Special Status Animals

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activities, OHMV activities, recreation use, ACEC and national river designations, wildlife water developments, habitat exclosures, nesting structures and islands, land tenure adjustments, land use authorizations, species reintroductions and implementation of various types of species/habitat management plans.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in pastures containing unsatisfactory riparian condition, a 36% reduction in AUMs, implementation of intensive grazing systems, conversion to winter grazing within the Snake River Plains and fencing to exclude livestock from 52 miles of riparian habitat would result in a total of 85% (554 miles) of riparian habitats being in satisfactory condition after twenty years. This would be a 70% improvement over the current situation and 40% improvement over Alternative A. Most upland special status species habitats are also expected to improve. Benefits would include increased quality and quantity of late season forage, cover and water within most riparian and upland habitats, especially during the typically stressful late summer season. Substantial improvement in riparian habitats would benefit a number of special status species possibly including the mountain quail, sage grouse, Preble's shrew, northern leopard frog, spotted frog, western toad, redband trout and several species of special status bats and netropical migrants. In the long term, a portion of the area dominated by sagebrush, bitterbrush, juniper and other fire intolerant shrubs and trees is projected to gradually convert to more open habitats as fire frequency and acreage increases due to the increasing volume of ungrazed fine fuels remaining after July 15. This could result in a gradual loss habitat for sage grouse, pygmy rabbit and several species of neotropical migrants but could increase habitat for others including long-billed curlew, burrowing owl, northern harrier, grasshopper sparrow and California bighorn sheep. This is a broad generalization, however, and the extent of any major fire induced habitat conversions would depend upon a variety of factors including weather patterns, fire frequency and the level of fire suppression.

In Alternative C there would be 13 springs developed (32 fewer than in Alternative A), 22 miles of pipeline (19 more than Alternative A) and 11 reservoirs (8 fewer than Alternative A). This would result fewer acres of disturbance from livestock grazing in the vicinity of these projects and would reduce the likelihood of adversely impacting habitat for special status species. Beneficial impacts of these water developments would also be reduced. Any impacts on special status species would depend upon exact project locations but would be similar in nature to those described for Alternative A.

An estimated 76 miles of additional fence including 52 miles of pasture fence and 24 miles of riparian exclosure fence would be constructed in Alternative C. This would be 85 miles less than that identified in Alternative A and could result in less overall disturbance of special status species habitats from fence construction and livestock trailing. Pasture fences would facilitate implementation of improved livestock grazing systems which would generally benefit both riparian and upland habitats for a diversity of species.

The combination of prescribed burning and woodcutting would result in the elimination of an estimated 35,200 acres of juniper woodland (15,200 acres less than Alternative A) and 20,500 acres of sagebrush habitat (19,100 acres less than Alternative A). Types of impacts would be similar to those projected for Alternative A except in those pastures where the July 15 end-of-grazing-season constraint is in effect. Treatments within these pastures should recover more quickly from the initial treatment impacts and provide higher quality wildlife benefits as a result of rest from late season use. Fewer acres of sagebrush treatment and reduced acreage of juniper treatment with sagebrush understory would result in fewer acres of pygmy rabbit habitat lost to prescribed burning, although, this could be overshadowed by the projected increase in habitat burned by natural fires.

Impacts from mining activities are projected to be the same as those projected in Alternative A except that an additional 69 miles of special river designations would be excluded from mineral entry.

In Alternative C about 32,000 acres of the Owyhee Front SRMA within the Wild Horse Herd Management Area, 10,000 acres within the Snake River Birds of Prey SRMA near Fossil Butte and a similar sized area within pronghorn winter range west of Murphy would be changed from a Limited - Level 1 to a Limited - Level 5 designation. This would result in closing of about 120 miles of trails and sand washes within these areas. Benefits that could be derived from these changes include reestablishment of disturbed vegetation within closed trails and washes, resulting in improved forage and cover for special status animal species within these areas and elimination of OHMV disturbance of special status species in the vicinity of closed trails and washes. Special status species that could be beneficially impacted include the western ground snake, long-nosed snake, long-billed curlew, burrowing owl, ferruginous hawk, several special status species of neotropical migrants and kit fox. Alternative C would also result in changing 420,434 acres of "Open" designation to a Limited - Level 4 and Level 5 and some Level 6 designations which would eliminate all cross-country OHMV activity within the resource area. This could result in reduced disturbance to special status animal species habitats and populations, especially during hunting seasons when use would be heaviest throughout much of the resource area. An additional 69 miles of national river designations including the four forks of the Owyhee River, Deep Creek, and portions of Nickel Creek and Current Creek would be closed to all OHMV activity with the exception of designated crossings. This could result in long-term protection of aquatic, riparian and canyon habitats and dependant special status species. Although management of OHMV activity should improve in Alternative C, it is projected that because of rapidly increasing use levels and the inability to adequately enforce OHMV regulations, adverse impacts on special status species, especially within the Owyhee Front SRMA would continue to increase. The overall impacts of the OHMV actions in Alternative C are projected to be beneficial only in terms of dampening the adverse impacts of increasing use levels and only if there is a significant increase in enforcement of OHMV regulations.

Other recreation program management actions in Alternative C include construction of the Guffey Butte and Jump Creek nonmotorized trails and establishment of two equestrian trailheads. Human activity on the Guffey Butte trail, designed to redirect current and projected increased use around Guffey Butte at a lower elevation, could result in disturbance to a diversity of raptor species nesting on the butte including ferruginous hawks. Initial development of Celebration Park has already resulted in an increase in hiking activity on Guffey Butte during the nesting season and with development of this trail, the level of use would likely increase substantially. This could conceivably lead to nest failures or total abandonment of this area by some or all nesting raptors including ferruginous hawks.

Construction of the Jump Creek trail, although possibly concentrating most visitor use into a smaller area, would also increase overall recreation use and associated human disturbance within Jump Creek Canyon possibly resulting in increased disturbance and adverse impacts to redband trout and several special status species of neotropical migrants. At present much of the upper canyon is relatively inaccessible and undisturbed. Both short-term and long-term impacts of these trails are projected to be slightly adverse.

Establishment of two equestrian trailheads would result in increased levels of horseback riding and camping use within the Owyhee Mountains. This would result in deterioration of habitat along the trails and camp sites and some additional disturbance to any special status animal species within the immediate vicinity of trails and camps. Overall short-term and long-term impacts from trailhead establishment are projected to be slightly adverse.

Designation of a total of 163 miles of national rivers in Alternative C, as apposed to 94 miles in Alternative A, would result in withdrawal of an additional 69 miles of these reaches from mineral entry and avoidance of potential impacts associated with mineral exploration and mining. It would also result in strict limitations on vehicle access and travel and commercial recreation permitting, thereby limiting impacts typically associated with these actions. Special status species potentially affected and likely to benefit would be the same as for Alternative A and include bald eagles, peregrine falcon, mountain quail, white pelican, several special status species of neotropical migrants and bats, Preble's shrew, California bighorn sheep, northern leopard frog, spotted frog, and redband trout. Both short-term and long-term impacts are projected to be beneficial.

The retention of 158,307 acres and designation of 76,983 additional acres of public land as ACECs and ONAs would generally benefit the majority of special status species by restricting or prohibiting a wide range surface disturbing activities in various combinations. Although some restrictions could limit management options that could benefit some species (i.e., some vegetation treatments, exclosure fencing, etc.), the overall impact is expected to be positive.

Impacts from land use authorizations and land tenure adjustments would be the same as those identified for Alternative A except where specific use authorizations are limited by additional ACEC and national river designations, as already discussed.

Facilitating the reintroduction of peregrine falcons, mountain quail, Colombian sharptail grouse, California bighorn sheep or other special status animal species into suitable, unoccupied habitats would have a very beneficial impact on these species/subspecies. Establishment of additional viable populations could contribute to the eventual downlisting or delisting of the peregrine falcon and help prevent possible listing of the others.

Establishment of additional bald eagle roost trees within bald eagle winter habitat along the Snake River would have a beneficial impact on wintering bald eagles populations by enhancing a habitat component that is currently very limited.

[redacted]

Protection of all existing and potential northern goshawk nesting habitat by prohibiting the cutting or burning of all woodland habitats (excluding western juniper) would have a beneficial impact on this species by helping to ensure the continued existence of suitable nesting habitat.

The implementation of HMPs, conservation agreements and strategies and multi-agency species management plans would definitely have a positive impact on target species and habitats and would be expected to benefit most other special status species as well since most place restrictions on impacting uses and/or call for maintaining or improving specific habitat components and features. Conflicting management prescriptions for species with overlapping ranges could occur but is expected to be rare and would normally be resolved during the planning process.

Conclusion

The overall impact of Alternative C is projected to be beneficial for many special status animal species. Special status animal species associated with riparian/wetland habitats would experience the most significant and immediate benefits in response to the July 15 end-of-grazing-season constraint in riparian pastures and limited riparian exclosure fencing. Other management actions that would benefit special status animal species include the 36% reduction in AUMs, implementation of intensive grazing systems, conversion to winter grazing within the Snake River Plains some prescribed burns and woodcuts, more restrictive OHMV management throughout most of the resource area, national river, ACEC and SRMA designations, some land tenure adjustments, small habitat exclosures, nesting structures, protection of most woodland habitats, reintroductions and implementation of various types of species/habitat management plans. Adverse actions would include some prescribed burning treatments, increasing levels of OHMV activity and most other recreational activities and, continued disturbance and habitat loss associated with mining related activities and some land use authorizations.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

This objective would likely be met for most, but not all, special status animal species. Several change agents are projected to have a substantial impact on special status animal species. One would be the July 15 end-of-grazing-season constraint in riparian pastures and long term adjustments in livestock grazing management directed at improvement of riparian habitat condition. This would have a beneficial impact on riparian/aquatic dependant special status animal species and would facilitate meeting the objective for those species as would national river, ACEC and SRMA designations. Another major action would be continued authorization of intensive OHMV activity, especially within the Owyhee Front SRMA. This is projected to have a continued adverse impact on some special status animal species within this area and could preclude meeting the objective for these species, although, the more restrictive OHMV management actions should help to limit these impacts. Mining activity and potential increases in naturally occurring fires are largely unpredictable but are likely to result in a loss of some special status species habitat.

[redacted]

Wild Horse Management

Change Agents

Recreation use, OHMV activities, mining activities, fencing, vegetation treatments and livestock grazing.

Impact Analysis

There is a projected increase in recreation use, including OHMV use, within the resource area. Much of the increased OHMV use is projected in the Owyhee Front SRMA. The Black Mountain and Hardtrigger HMAs would be located totally within the Owyhee Front SRMA. The areas within the Hemingway Butte, Northwest Rabbit, and Southwest Rabbit pastures containing 15,657 acres would not be managed for wild horses in Alternative C because of the increased motorized use in this area. The reduction in acreage in the Black Mountain HMA would have long-term effects on the wild horses by reducing living space. An area of about 3,990 acres adjacent to the Hemingway Butte Trailhead within the North Rabbit pasture would remain an HMA. This area would be heavily affected by OHMVs traveling between the Rabbit Creek and Hemingway Butte Trailheads. This area would be designated Limited - Level 1, allowing use on existing roads, jeep trails, motorcycle trails, and sand washes. The remaining 84,940 acres within the HMAs would be designated Limited - Level 5. This would reduce potential contact with motorized recreation and would reduce stress on the wild horses. Establishment of designated boundaries through signing would increase public awareness. This would allow the wild horses to remain undisturbed within the remaining historic use areas.

Short-term adverse impacts are projected in the HMAs until adequate law enforcement and signing programs are implemented. However, in Alternative C, provisions to limit public interaction could be implemented if monitoring indicates unacceptable interaction between OHMV use and wild horses is or would be occurring. Because of potential areas of restriction, increased public awareness and interpretive signing, major long-term impacts are not projected. Organized groups of greater than 15 people in Limited - Level 5 areas, which is the majority of the remaining HMAs, would not be allowed. Organized equestrian events would not be allowed within HMAs. Group size restrictions and other permitting requirements would be beneficial. The overall impacts from OHMV management are projected to be beneficial only if there is a significant increase in enforcement of the OHMV regulations.

Exploration and development of locatable minerals resources in HMAs could have an increasing detrimental impact on wild horses as habitat is disturbed over the next 20 years within the Black Mountain and Hardtrigger HMAs. The extent of habitat impacts would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations, increased public access associated with exploration, assessment and mining roads and ways and indirect disturbance to wild horses within the vicinity of mines and exploration operations. See Map LOCM-2 for locatable mineral potential. The HMAs would remain open for exploration and development of locatable minerals. Should locatable mineral exploration activities increase to the point of causing adverse impacts, measures would be taken to control such activities and to revise the herd management area plan (HMAP).

In Alternative C, there would be a year-long surface occupancy constraint for fluid mineral activities which would prevent displacement of wild horses from historic use areas.

Fences within HMAs would not be beneficial to wild horses. Gates along fences, if not opened in a timely manner after authorized domestic livestock grazing periods, would reduce winter range access and free-roaming behavior. If habitat or riparian exclosures or fences are constructed, the projects would be designed to not impact water access and the free-roaming behavior of the wild horse.

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[redacted]

Vegetation treatments would have short-term impacts on the wild horses. Wild horses would not be allowed on treatment areas for two growing seasons, however, after that period the wild horses would benefit from the increased forage.

When domestic livestock use is balanced with forage production the wild horses would be assured of adequate forage. Short-term impacts could occur during years of low forage production or high annual utilization. Identifying historic winter ranges and implementing a no-greater-than 40% utilization limit during the domestic livestock grazing season would assure adequate forage resulting in beneficial impacts on the general health and vitality of the herd. During spring, summer and fall periods of domestic livestock use the normal habits of the wild horses could be interrupted temporarily and have little impact. However, a change to a winter season-of-use for cattle would have an adverse impact on the wild horses. Winter grazing of cattle within historic horse winter ranges would prevent seasonal migration and reduce forage availability for the wild horses when cattle are present. Concentrated horse use could occur in areas between summer ranges and the fences around their winter ranges. The appropriate management level (AML) would likely be reduced by not allowing the wild horses into these historic winter ranges.

Conclusion

Establishment of the wild horse range would result in management of this area principally for wild horses. Long-term benefits of this management would be high demand for wild horses during adoptions and increased public awareness of the wild horse resource. Opportunities would be available for public viewing from an interpretive route through the area.

Overall, it is projected that this alternative would have a beneficial impact on wild horses with the exception of the adverse impacts associated with a season-of-use change to winter grazing for livestock.

Meeting the Objectives

Objective WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

In Alternative C, with the exception of any change of season-of-use to winter grazing for cattle, it is projected that the wild horses would not be adversely impacted over the long term. The majority of the HMAs would be designated a Limited - Level 5 OHMV area which would reduce public contact and cause the wild horses less stress. Identifying winter ranges and assuring adequate forage is available would maintain healthy herds. Existing fences within the HMAs currently adversely impact the free-roaming behavior and accessibility to water and seasonal ranges. The existing fences would be modified to reduce the current impact and new fences would be designed to not adversely impact the free-roaming behavior of the wild horses. Management of the wild horses would be improved because public awareness would be increased through interpretative signing of the HMAs and the establishment of a wild horse range.

Projected impacts on specific wild horse needs are shown on the following page.

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Impacts on General Health and Free Roaming Opportunity

Components	Baseline	Short-Term	Long-Term
Forage Allocation	2,329 AUMs	2,329 AUMs	2,329 AUMs
Viability Level	118 head	118 head	118 head
Estimated Herd Size	178 head	AML	AML
General Health	0	0	0

Free Roaming Opportunity

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	N/A	N/A
0521	Seeding	2	0	N/A	N/A
0521	Bridge Creek	3	0	N/A	N/A
0522	Rats Nest	1	+	+	+
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	N/A	N/A
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	N/A	N/A
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	-	0	0
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	0	-	0
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	N/A	N/A
0517	West Rabbit (S)	2	-	N/A	N/A
0517	Kane Spring	3	0	0	0
0517	Moores Creek	6	-	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

Water Availability for Wild Horses in HMAs on a Year Long Basis

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	N/A	N/A
0521	Seeding	2	0	N/A	N/A
0521	Bridge Creek	3	-	N/A	N/A
0522	Rats Nest	1	0	0	+
0556	Shares Basin	1	0	0	+
0513	Elephant Butte	3	-	N/A	N/A
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	N/A	N/A
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	0	0	0
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	-	-	0
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	N/A	N/A
0517	West Rabbit (S)	2	0	N/A	N/A
0517	Kane Spring	3	0	0	0
0517	Moores Creek	6	0	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

[redacted]

Public Interaction/Contact with Wild Horses Resulting in Disturbance

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	N/A	N/A
0521	Seeding	2	0	N/A	N/A
0521	Bridge Creek	3	0	N/A	N/A
0522	Rats Nest	1	-	-	0
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	N/A	N/A
0516	Opalene	3	-	-	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	N/A	N/A
0508	Wilson	1	-	-	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	2	0	0	0
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	-	-	-
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	N/A	N/A
0517	West Rabbit (S)	2	-	N/A	N/A
0517	Kane Spring	3	+	0	0
0517	Moores Creek	6	+	0	0
0517	South Rabbit	5	+	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

Livestock Grazing Management

Change Agents

Riparian management practices, vegetation treatments, range improvements, winter grazing, wild horse management, interim management policy for wilderness study areas, national river designations, ACEC designations and mining activities.

Impact Analysis

Active preference is currently 135,116 AUMs with an average actual use (1988-1997) of 96,676 AUMs. Alternative C would result in a 5-year preference of 87,121 AUMs and a projected 20-year preference also of 87,121. See Table LVST-C for forage allocations by allotment.

In those pastures containing riparian ecosystems identified in less-than-satisfactory condition where grazing systems are not implemented, there would not be any livestock grazing after July 15 of the grazing season. This constraint would be implemented within two grazing seasons after approval of the RMP and would be the cause of the majority of the identified reduction in grazing preference AUMS. Some of the projected initial reductions in AUMs would potentially become available as best management practices are implemented and riparian ecosystems attain satisfactory condition. See Table RIPN-1 and Map RIPN-4 for affected allotments and pastures.

Vegetation treatments (prescribed burning and juniper harvest) would result in a short-term loss of 814 AUMs during prescribed burn management because of rest from livestock grazing for three consecutive growing seasons; one growing season before the burn (to ensure sufficient fuel to carry a fire) and two growing seasons after the burn (to enhance vegetation establishment). The long-term impacts would result in an increase of 2,713 AUMs potentially available in the prescribed burn areas. It is not projected that the vegetation treatments would result in increased active preference on any allotment but some potential AUM reductions could be averted. See Table LVST-3 for a summary of potential vegetation treatments.

Vegetation Treatments	Prescribed Burn	Burn and Seed	Juniper Harvest	Total
Acres	64,400	0	17,000	81,400
Short-term loss (AUMs)	644	0	170	814
Long-term gain (AUMs)	2,147	0	567	2,713

Range improvement projects (water developments and fences) needed to implement allotment grazing systems and manage livestock distribution would be designed to decrease the amount of acreages with unsatisfactory rangeland conditions and to meet other resource objectives. New fences would be designed and constructed and existing fences would be modified to meet Lower Snake River District Fence Policy standards for the wildlife species present to minimize barriers to big game movement. See RISP-1 and Figure WLDF-1. Cattleguards and other facilities would be constructed as necessary where new projects impede recreation movement. With implementation of the RMP and with the subsequent allotment assessments, any range projects would be projected to have a beneficial impact upon stocking rates by helping to avert potential AUM reductions. See Table LVST-3 for a summary of potential range improvement projects for Alternative C.

Those pastures in the Snake River geographic reference area that are below 3,500 feet in elevation would have a season-of-use change from spring to winter. This would allow slow improvement in the salt desert shrub range sites. Adjusting livestock grazing within those allotments below 3,500 feet in elevation to winter grazing should not result in any significant reductions in stocking levels. Active preference currently available would be maintained through winter use. Because these fragile range sites are projected to improve slowly, even with winter use, there are no increases in available AUMs projected over the next 20 years. See Table LVST-C for season-of-use by allotment.

The proposed changes in wild horse management would not have a significant impact on the livestock grazing program. There would not be a net change in the total allocation for wild horses or livestock. As wild horse allocations increased in the Hardtrigger HMA they would be decreased equally in the Sands Basin HMA. Livestock adjustments would be made inversely and at the same level as wild horses. So, livestock allocations would increase in Sands Basin and decrease primarily in the Rats Nest allotment which lies in the Hardtrigger HMA.

Interim management policy for wilderness study areas restricts range project developments. Rangeland developments may be constructed within WSAs but only if carefully designed to maintain or enhance the wilderness values.

National river designations could result in livestock being removed from designated river channels. This could result in a change in the affected allotment's season-of-use but there are no projected reductions in active preference.

ACEC designations would result in livestock being excluded from two areas but would not result in any decrease in active preference. Within the Owyhee River Bighorn Sheep Habitat Area ACEC no livestock water developments would be constructed. See Table ACEC-C for ACEC management actions.

The Stone Cabin Mine would reduce livestock forage on three allotments, Jump Creek (0570), Flint Creek (0503) and Silver City (0569) by approximately 112 AUMs for the life of the mine which is projected to be 30 years. Reclamation would result in all but 15 AUMs being lost. This is not likely to result in reductions in grazing preference.

Conclusion

Most of the resource concerns identified in the allotment summary (Appendix LVST-1) would be resolved in the next 20 years. At the end of 20 years 35% of the uplands in the Owyhee River and Jordan Creek geographic reference areas would remain in an early seral stage and 20% would achieve a late seral stage. About 5% of the lands in the Snake River geographic reference area would improve. Water, riparian and fish objectives would be met on 85% of the stream miles. Livestock use (active preference) would be 87,121 AUMs at the end of 20 years, a 35% decrease from current active preference.

Meeting the Objectives

Objective LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

This objective would generally be met in Alternative C because most of the resource concerns that were identified would be resolved.

Locatable Minerals

Change Agents

Mineral withdrawals for wilderness areas, corridors along nationally designated rivers, certain recreation management areas and ACECs; land tenure adjustments.

Impact Analysis

Withdrawal actions taken by Congress or the Secretary of the Interior in Alternative C would remove 236,463 acres (about 16%) of public lands in the resource area from location and development under the general mining laws, subject to valid existing rights of pre-existing mining claims. Validity exams would be conducted on these claims to determine whether valid existing rights exist. See Table LOCM-C for specific closures.

Managing lands with high locatable mineral potential primarily for mineral development could result in adverse impacts on riparian areas, water quality, wildlife, cultural and wetland resources through construction of roads, drill pads, mine pits, dumps, heap leach pads and related facilities. Requiring industry to use best management practices during all phases of exploration and mining would minimize damage to other resource values. Mitigating measures would stabilize areas disturbed during mining and prevent excess sediment deposition in wetlands and live streams. Proper design of facilities would reduce or eliminate acid mine drainage and wildlife kills. Cultural resources could be salvaged prior to or during construction to mitigate adverse impacts on historic resources. Performance bonds would be required of all operations conducted under a Plan of Operations as defined by 43 CFR 3809.1-4. Inspections of all exploration operations using mechanized equipment and of all mining operations would occur on a frequent basis to insure an adequate level of mitigation and protection.

Land tenure adjustments would remove a small amount of land from location under the general mining laws. Mineral reports would be prepared on all lands involved in the sales and exchanges and mining claims on public lands would require a validity examination to determine any valid existing rights.

Conclusion

The overall impact of Alternative C on locatable mineral resources would be favorable to mineral resource development. Reasonable restraints on exploration and development can be imposed to reduce adverse impacts on other resource values.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Physical access to the resource is provided for by the mining laws. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Two main criteria were considered when determining if the objectives were being met: 1) Developmental restrictions - if maximum bonding, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 2) Potential likelihood of development - is the resource present in economically minable amounts.

Objective LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

The objective would be met in Alternative C.

[redacted]

Availability of Lands for Locatable Mineral Activity Relative to Resource Potential - Alternative C

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	24,974	1,207,421	1,232,395
Withdrawn	366	236,097	236,463
Split Estate			
Open	2,135	126,001	128,136
Withdrawn	40	5,265	5,305

Fluid Minerals

Change Agents

Mineral leasing closures and restrictions in wilderness areas, corridors along nationally designated rivers, certain recreational areas and ACECs, for riparian and wetland management, water quality protection, recreation use, wildlife habitat, and land tenure adjustments.

Impact Analysis

In Alternative C 116,304 acres (8%) of public lands in the resource area would be closed to oil and gas and geothermal leasing. Of this acreage 65,131 acres are currently closed. All but 4,043 acres of split-estate lands (oil and gas) and 2,156 acres (geothermal), where the surface is privately owned, would be open to leasing. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for fluid mineral leasing. Those WSA's are not specifically listed in Table FLUM-C, however considerable areas shown in the table overlap or are contained within the WSA's.

Restriction of fluid mineral operations through seasonal or yearlong no surface occupancy would impact 571,408 acres (39%) of public lands in the resource area. Seasonal restrictions on operations would not seriously impede any future leasing activity and should provide adequate protection to wildlife resources. About 206,000 acres are prescribed for yearlong no surface occupancy restrictions, which could have an adverse impact on leasing since there would be no practical way to explore or develop some of these lands. See Table FLUM-C for specific closures and restrictions.

Modifications to any future exploration or drilling program would usually be made to protect riparian and wetland areas and water quality without seriously impeding fluid mineral development. Protection of these resources would not likely have any serious impact on fluid mineral operations in the foreseeable future.

Recreation activities would generally be incompatible with fluid mineral exploration and development. Noise, dust and heavy machinery associated with drilling operations would adversely impact recreational opportunities on the public lands. Future drilling sites may have to be fenced off from nearby established recreation areas, such as campgrounds, OHV parks or trails for safety purposes. Access routes into fluid mineral development sites may have to be restricted or relocated to not interfere with certain recreation activities. Established recreation sites may require a buffer of public lands where development activities would be restricted to reduce disturbance to recreationists.

Land tenure adjustments would cause some minor shifts in the amount of land available for fluid mineral leasing.

[redacted]

Conclusion

The outlook for an active fluid minerals leasing and exploration program is poor. There would always be some interest in fluid minerals in southwest Idaho, particularly in low-temperature geothermal resources, but until energy prices are much higher then present or until new technology becomes available, no leasing activity is likely to occur. Large scale no surface occupancy restrictions may have a small adverse impact on any leasing interest in the southern part of the resource area. Overall, the impact of Alternative C on fluid minerals development is moderately favorable.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

The objective would be met in Alternative C.

Availability of Lands for Fluid Mineral (Oil and Gas) Activity Relative to Resource Potential - Alternative C

Management Constraint	Low Potential	Zero Potential	Total
Public Lands			
Open	480,896	300,250	781,146
Open-Seasonal Occupancy	244,680	120,320	365,000
Open-No Surface Occupancy	15,296	191,115	206,408
Closed	107,230	9,074	116,304
Split Estate			
Open	65,083	64,315	129,398
Closed	2,926	1,117	4,043

[redacted]

Availability of Lands for Fluid Mineral (Geothermal) Activity Relative to Resource Potential - Alternative C

Management Constraint	High Potential	Low Potential	Total
Public Lands			
Open	56,210	724,936	781,146
Open-Seasonal Occupancy	12,420	352,580	365,000
Open-No Surface Occupancy	34,505	171,903	206,408
Closed	72,586	43,718	116,304
Split Estate			
Open	410	30,875	131,285
Closed	1,039	1,117	2,156

Mineral Materials

Change Agents

Population growth; mineral withdrawals for wilderness areas, certain wildlife areas, recreation sites, natural areas and ACECs; land tenure adjustments.

Impact Analysis

In Alternative C, 3,470 acres (8%) of public lands classified as having high potential for sand and gravel would be closed to disposal. This small area is not likely to seriously impede development of the area's mineral material resources. See Table MMAT-C for specific closures. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for mineral material disposal. Those WSA's are not specifically listed in Table MMAT-C, however considerable areas shown in the table overlap or are contained within the WSA's.

Protecting riparian areas and wetlands would require some restrictions on the development of mineral material sites, particularly along stream channels. Future material sites would likely be located along bench and terrace gravel deposits and alluvial fans away from any live water. Access roads into material sites may need to be relocated or engineered specifically to protect wetlands and riparian areas.

Land tenure adjustments would remove a small amount of public land from availability as material sources.

Conclusion

The overall impact of Alternative C on mineral materials management in the Owyhee Resource Area is generally favorable for the development of these resources.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

The objective would be met in Alternative C.

Availability of Lands for Mineral Materials Activity Relative to Resource Potential - Alternative C

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	39,830	1,193,479	1,233,309
Closed	3,470	232,709	235,549
Split Estate			
Open	1,370	131,029	132,399
Closed	20	1,022	1,042

Recreation

Change Agents

Recreation use, OHMV designations, special designations, recreation facilities, fencing, water developments, acquisition, vegetation treatments, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Changes in the Availability of Recreation Opportunity Settings

Alternative C would result in some shift in the amount of acreage available in each of recreational opportunity spectrum (ROS) classifications. ROS classifications are an expression of the type of experiences one can achieve while in an area with various social, physical, and managerial settings. See Table RECT-3 for details on each of the settings. Semi-primitive motorized settings would remain the predominate opportunity class covering about 44% of the resource area. In the northern portion of the resource area (the Snake River and Jordan Creek geographic reference areas), roaded natural, rural, and urban settings would accompany semi-primitive motorized settings. Some semi-primitive motorized settings would exist in remote mountainous areas. To the south (Owyhee River geographic reference area), semi-primitive motorized settings would continue to isolate numerous pockets of semi-primitive nonmotorized settings across the open plateau areas, as well as define a concentration of primitive and semi-primitive

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nonmotorized settings encompassing the Owyhee Canyonlands and the North Fork Owyhee River Backcountry SRMAs. In the south, roaded natural settings with some rural acreage would only be associated with the Owyhee Uplands National Back Country Byway and several connecting roadways.

ROS Classifications Availability In Alternative C (Map RECT-1)

ROS Class	Total Acres in 1998	Percent of Resource Area in 1998	Percent of Resource Area in 2018
Primitive	234,983	13%	10%
Semi-Primitive Nonmotorized	386,150	22%	23%
Semi-Primitive Motorized	794,010	44%	44%
Roaded Natural	177,080	10%	12%
Rural/Urban	187,269	11%	11%
Total*	1,779,492	100%	100%

* All lands: BLM, State and private.

Management actions in Alternative C are projected to cause changes in ROS class acreages primarily within primitive and semi-primitive motorized and nonmotorized settings. Changes in classification could result from, 1) off-highway motorized vehicle activity allowed under various OHMV designations; 2) increased administrative access to new range improvements; 3) vegetation treatments; or 4) development of new roads or upgrading existing vehicle routes for mineral exploration and development. Administrative routes to new range improvements are projected to be unconstructed jeep trails, potentially reducing the amount of primitive and semi-primitive nonmotorized settings available. Mineral development, such as that in the vicinity of Silver City, would change semi-primitive motorized settings to roaded natural settings with the construction of maintained gravel roadways. Recreational development would also contribute somewhat to increased roaded natural settings.

While wilderness study lands remain under the BLM Wilderness Interim Management Policy (IMP), no change in the availability of primitive or semi-primitive nonmotorized settings in wilderness study areas would occur within in the Owyhee River area. Should suitability recommendations as presented in the Owyhee RMP be accepted by Congress, 123,890 acres of public lands would be released from the IMP and made available for other multiple uses, including vegetation treatments. These projects could substantially affect the naturalness of the Juniper Mountain area, converting primitive settings to mostly semi-primitive motorized settings. In the North Fork Owyhee River Backcountry SRMA/WSA, vegetation treatments could cause some reduction in naturalness, resulting in a shift toward semi-primitive nonmotorized settings. The semi-primitive nonmotorized settings of the plateau lands in the Owyhee Canyonlands region (including nonsuitable WSA lands) could allow burn and seed projects that would effect the quality of semi-primitive nonmotorized experiences by reducing naturalness, yet these projects would probably not cause a change in ROS class. Some acreage of primitive settings in non-WSA areas around upper Nickel Creek would also shift to semi-primitive motorized or nonmotorized settings as a result of woodland treatment projects. The degree of change in available ROS settings would be the same as that projected for Alternative A.

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Off-highway motorized vehicle (OHMV) designations prescribed in Alternative C would limit public use on all public lands across the resource area. Restrictions would "Close" 244,430 acres to OHMV use and restrict ("Limit") use on 1,075,561 acres, the predominate restrictions being the Limited - Level 4 and 5 OHMV designations. No public lands would be "Open" to cross-country travel of motorized vehicles. See Map RECT-1C.

Alternative C would result in substantial changes in how the resource area could be used for off-highway motorized vehicle recreation. These changes are detailed in the discussion of impacts on the quality of recreational experiences located further in this recreation analysis.

Impacts on Recreational Opportunities in Special Recreation Designations

Alternative C prescribes intensive management of nine (9) special recreation management area (SRMA) designations totalling 349,294 acres. The Silver City SRMA would be eliminated, the Jump Creek SRMA would be reduced in size and the Owyhee Front, Deep Creek and North Fork Owyhee SRMA would increase in size. Alternative C also recommends congressional designation of 163 miles along the North Fork, East Fork and South Fork Owyhee River, and Deep-Nickel-Current Creek as national wild/scenic/recreational rivers within the Owyhee Canyonlands, North Fork Canyon, North Fork Owyhee Backcountry, and Deep Creek SRMAs.

Special designations would focus attention on long-term protection of recreational opportunities dependent on predominately primitive and semi-primitive motorized and nonmotorized settings, and in some areas roaded natural settings. Management actions prescribed in SRMAs are tailored to protect existing ROS classifications with emphasis on minimizing changes in the current level of natural conditions or by improving public access to allow the enjoyment of the natural resource base by a larger sector of the general public. Management actions in Alternative C would provide more restrictive "Limited" OHMV designations in heavy OHMV use areas such as the Owyhee Front SRMA to protect natural resources, reducing semi-primitive motorized opportunities through trail closures, yet would result in enhanced nonmotorized recreation access opportunities. Nonmotorized opportunities would be further enhanced in areas currently receiving little recreation use (North Fork Owyhee Backcountry and North Fork Canyon SRMAs) through trail developments where such use would not be detrimental to natural resources. Alternative C would also ensure maintenance of existing roaded natural experiences associated with recreation sites as well as enhancing these experiences through development of new sites in the North Fork Backcountry, Owyhee Canyonlands and Snake River BOP SRMAs, and along the Owyhee Uplands National Back Country Byway. New site work would include reconstruction of the Castlehead Springs and Trout Springs Hunter Camps in the extensive recreation management area.

National river designation for 163 miles of river canyons would include withdrawal of the affected lands from mineral entry, precluding any potential irretrievable loss of outstanding primitive recreational values considered to be of national significance.

Impacts on the Quality of Recreational Experiences

Management actions prescribed in Alternative C would result in a change in the availability of the various recreational opportunity settings. Management actions would also affect the overall quality of recreational experiences that would be obtainable in the resource area.

Primitive settings require a sense of remoteness, a vastness (size), and little or no evidence of human use. Currently, recreational users seek out the canyonlands and some adjoining plateau and rock outcrop landscapes of the Owyhee River system for primitive recreation experiences. In Alternative C,

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these lands are prescribed for mostly Class I and II visual resource management (VRM) where management action would be allowed if they would only slightly affect the naturalness or scenic quality of the landscape. Recreation management actions identified in Alternative C affecting VRM Class I and II areas include short portage trails around two rapids on the East Fork Owyhee River (Owyhee Canyonlands SRMA), and the foot/equestrian trail systems within the North Fork Owyhee River watershed (North Fork Canyon and North Fork Owyhee Backcountry SRMAs. See Map RECT-4. Projected increases in recreation use on the East Fork would not be enough to cause substantial adverse effects to naturalness, aesthetic qualities or solitude opportunities in the river canyon, except at isolated areas of concentrated use such as the rapid portages. Increased levels of recreation use are projected to produce unsightly, random, unstable trailings around the rapids. Construction of one good maintained trail would prevent this. The foot trails along the North Fork would be built so as not to adversely affect naturalness or scenic values for which primitive experiences are dependent. There are currently no maintained trails in the resource area except the short (one-eighth mile long) Jump Creek Trail. By developing foot access into the North Fork system there would be a greater diversity in the type of nonmotorized experiences available in primitive and semi-primitive natural settings.

Other recreation management actions pertaining to development and maintenance of recreation facilities (campgrounds, picnic areas, trailheads and foot/equestrian trails) in semi-primitive motorized and roaded natural settings would provide increased choices in access opportunities without substantially affecting the natural or aesthetic character of the landscape, but would contribute to increased recreation use. The affected semi-primitive and roaded natural settings would generally be managed as VRM Class II and III areas. Some modifications of the natural landscape would be permissible in these ROS and VRM classifications, particularly if they enhance recreation opportunities. Trail and recreation site developments, such as in the North Fork (Map RECT-4), Guffey Butte (Map RECT-5) and Jump Creek areas, would improve nonmotorized access into rugged canyon areas giving access to many who would otherwise not have an opportunity to experience these settings. Such facilities tend to promote localized increases or concentrations of recreation use at a rate greater than at undeveloped sites, demanding a greater managerial presence.

Projected increases in visitor use in the resource area would not adversely affect the quality of recreational experiences through the year 2018 by causing a sense of crowding or by contributing to deterioration of the natural landscape, except in the Owyhee Front. Rapidly increasing use of the Owyhee Front would hamper BLM's ability to reduce or prevent resource deterioration of undeveloped sites on an overall basis. Localized problems associated with vandalism and unauthorized OHMV use would likely remain the principal cause of resource deterioration and facility damage at already developed sites such as Jump Creek and the off-highway vehicle (OHV) trailheads. Alternative C prescribes additional developments to mitigate resource damage as well as increase recreational opportunities along the Owyhee Front. Of particular importance, Alternative C provides specific direction in the development of equestrian trailheads and trail systems in the Owyhee Front (outside of wild horse HMAs) and Snake River BOP SRMAs to accommodate increased interest in horseback activities. These trail systems could also be used for hiking. In recent years there has been a dramatic increase in equestrian use for competitive events, casual use and commercial outfitting. To date, BLM has only been able to meet the need for facilities associated with motorized (OHMV) recreation use along the Owyhee Front.

OHMV designations are intended, in part, to protect the existing recreational settings by preserving the natural and aesthetic character of select landscapes in the face of ever increasing numbers of recreation users. The extensive (973,922 acres) Limited - Level 4 through Limited - Level 6 OHMV designations prescribed in Alternative C would generally help preserve the natural resource base of the resource area. However, the designations would greatly reduce motorized and nonmotorized recreation opportunities and experiences as follows:

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In the Owyhee Front, the shift from the existing Limited - Level 1 to Level 5 and 6 OHMV management would substantially reduce existing OHMV activities on about 32,000 acres which center around the use of motorcycle/ATV trails and sand washes. There are about 90 miles of motorcycle/ATV trails and sand washes that would no longer be available for public use within the wild horse herd management areas (HMAs) of the Owyhee Front SRMA. The Kane Spring pipeline road complex (about 18 miles) would also have to be closed to public recreational use to effectively manage the HMA. The affected lands would include all lands west of Reynolds Creek and the middle to upper elevations of the Rabbit Creek area. Also, the 23,524 acres of the Fossil Creek Addition area, north of Highway 78, would no longer have about 50 miles of sand washes and trails available for OHMV use.

The Limited - Level 4 designation for the Owyhee River GRA would maintain existing opportunities on dirt roads and jeep trails but would eliminate further use of single-track OHMV trails in the region. The designation would not affect springtime vehicle access for boating or backpacking.

The Limited - Level 5 designation imposes a seasonal closure on OHMV use from November 1 to May 31 of each year throughout most of the Jordan Creek GRA and the western portion of the Snake River GRA, except for a limited number of designated routes and for snowmobile use areas in designated upper elevations. This seasonal closure would in effect curtail all types of OHMV-dependent recreation use on much of the northern half of the resource area during a highly favorable use period. Regardless of the recreational activity, all vehicle use would be restricted to only the several maintained dirt, gravel or asphalt roads and a limited number of designated dirt roads and jeep trails in the Level 5 area. This could severely impact (reduce) potential access for winter snowmobiles and those wishing to enjoy springtime hiking or backpacking because unmaintained dirt roads needed for initial access could be unavailable. The OHMV routes remaining open for use during the closure period cannot be determined at this time.

The Limited - Level 6 designation covering much of the rest of the Jordan Creek GRA and some upper elevation areas of the eastern Snake River GRA would enhance OHMV opportunities to some limited extent by allowing yearlong use of designated trail systems designed for motorized or nonmotorized activities. This designation would allow the development of some additional planned and managed single-track trails in the Owyhee Mountains where trails presently do not exist. However, in the Owyhee River GRA and, as discussed above for the lower elevations of the Owyhee Front in the Snake River GRA, the Limited - Level 6 designation would reduce OHMV opportunities by eliminating use on many presently available trails.

How severely impacted a user group is by the "limited" designations depends on how OHMVs are used. To the "trail rider," a motorized vehicle (motorcycle, ATV or 4X4 truck) is principally a mode of transportation to seek out interesting landscapes or recreation experiences (hunting, rock collecting, photography, etc.). This user group is generally content using existing roads and trails and may not enjoy the presence of new vehicle routes that detract from the scenic character of the landscape. Being required to remain on existing and designated vehicle routes and avoiding cross-country travel can be tolerated or even supported if it helps preserve the Owyhee Uplands experience. However, extensive Limited - Level 4 (south half of resource area) and Level 5 (north half of resource area) designations would seriously reduce the potential for a single-track trail system for trail bike riders (the only exception being the Level 6 area). These users would be confined to trail riding opportunities on trails already heavily used by OHMVs in the Owyhee Front area (Limited - Level 1 and Level 6 designations). Some trail riders consider the trail conditions found in the Limited - Level 1 designation area of the Owyhee Front (high levels of use, moguls, etc.) around the OHV trailheads unacceptable for quality riding experiences. Alternative C leaves little opportunity to select alternative riding areas within the resource area. The Level 6 area is not

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of sufficient size to meet increasing demand for OHMV opportunities, thus eventually displacing users to other areas. A reduction of springtime opportunities in much of the northern part of the resource area would further add to displacement of trail riders. The Owyhee Upland region has been historically used for early spring activities while USFS lands were still closed by snow.

The extensive "Limited" designations would also confine another type of OHMV user group to the 101,612-acre Limited - Level 1 area of the Owyhee Front. This other type of OHMV user group consists of the off-road vehicle ("ORV") user. The "ORV" user often operates the same types of vehicles as the "trail riders", but the performance of the vehicle and the physical agility and strength required to operate it at high speed or on difficult terrain are necessary elements for a satisfactory recreational experience. This user group may tolerate a higher degree of landscape disturbance without it notably affecting the quality of the recreation experience. The Limited - Level 4/5/6 designations would eliminate the ORV experience from most of the resource area. Even the Limited - Level 1 designation would reduce the quality of the ORV experience for some because it generally prohibits unrestricted cross-country travel and hill climbing. The most unrestrictive ORV opportunity in the resource area in Alternative C would be in the small authorized hill climbing area around the Hemingway Butte OHV Trailhead along Reynolds Creek Road.

Since approval of the Owyhee MFP, numerous range improvement projects to promote improved overall vegetation condition and to protect riparian areas have been constructed, each project usually adding another jeep trail to the recreation setting, and each project reducing the open character of the area. These projects add to the impact of hundreds of other projects already in place prior to 1981. Alternative C would generate additional facility encounters at a level lower than that experienced between 1981 and 1991, with project emphasis being on pasture fences and riparian exclosures. These projects could have a slight to moderate adverse cumulative effect on semi-primitive recreation values, a further loss of the free-roaming experience historically provided on public lands in the resource area. Continued use of cattleguards in pasture division fences would help mitigate the loss of quality in the motorized free-roaming experience, yet recreational users involved in both motorized and nonmotorized activities would find their access to some stream channels and spring sites inhibited by more riparian exclosure fencing.

A number of fence gates define legal divisions between Federal and private properties where the public has no right of passage. Many of these gates can be locked, particularly during the hunting season. Land actions (acquisitions of easements or free title, and exchanges) in Alternative C have the potential for providing some public access where locked gates or signing prevents access to large blocks of public land.

Improved upland and riparian vegetation conditions brought about by changes in intensive grazing systems and the use of riparian exclosures could cushion terrestrial wildlife populations against the natural adverse effects of cyclic climatic conditions and, therefore, possibly result in population increases. In addition, reduced livestock numbers (AUMs) in both riparian and upland areas would make more forage available to wildlife. Increased hunting opportunities for mule deer, antelope and upland game birds would occur. Similar beneficial impacts could also occur to aquatic wildlife (fisheries) populations. Greater diversity, numbers and sizes of fish would be projected for the angler. However, from a recreational perspective there could be a disadvantage to improving riparian conditions. Smaller stream channels returning to good or excellent conditions could become overgrown with dense willow and other shrubby riparian vegetation. This vegetation could even crown over much of a stream to make fishing extremely difficult. In narrow, steep-walled canyon areas, riparian vegetation could extend across the entire canyon bottom, making hiking and camping activities difficult if not impossible. This access situation could be compounded in some areas by riparian fencing. Improving riparian conditions could also affect boating safety along the narrow upper reaches of Deep Creek as more shrubby vegetation overhangs the stream channel.

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Alternative C identifies treatment of about 81,400 acres with prescribed burning and woodcuts (or alternative treatment methods on about 8,100 acres) to control the spread of serial juniper or reduce sagebrush competition for grass species on sagebrush-bunchgrass ecological sites. Such actions are intended, in part, to maintain or restore forage and forage/cover ratio requirements for wildlife, contributing to more stable wildlife populations and higher quality hunting opportunities in the area. However, the woodland treatments degrade the scenic quality of the landscape and, in the case of woodcutting, the landscape's natural character. Adverse visual impacts could last as long as 50 years depending on the age class of serial juniper stands being treated (see visual impact analysis). During this period, the quality of recreational experiences would be diminished. Treatments would be concentrated in the Jordan Creek area and northern portion of the Owyhee River area within mostly VRM Class III and IV areas. Numerous treatments in this region through the year 2018 would have a cumulative effect on the quality of recreational experiences of all types within predominately primitive and semi-primitive motorized and nonmotorized settings, and, to some extent, roaded natural settings. Woodland treatments could reduce the amount of acreage in primitive settings within the resource area from 13% to 10% if WSA lands not recommended for wilderness designation are released from wilderness consideration. In semi-primitive motorized settings, reduced natural and scenic character may be tolerated more readily by hunters (a primary user group) in light of the improved game populations projected. Those using roaded natural settings along such roads as the Owyhee Uplands National Back Country Byway would have their recreation experiences most affected because the sightseeing and driving for pleasure activities sought on these roads are highly scenic dependent. In time (25 to 50 years), visual effects of treatments would be largely gone and the quality of the recreation experiences restored or enhanced. Reburns of treated areas are projected to occur on a regular basis. Reburns would have minimal visual impact after several growing season because larger trees would generally not be involved thereby having little long-term effect on recreational experiences. For prescribed burn projects affecting mostly semi-primitive motorized and nonmotorized settings found on sagebrush-grassland ecological sites outside of the woodland region, the burn and possible subsequent drill seeding would not effect visual quality over the long term, but would somewhat reduce naturalness to the detriment of semi-primitive nonmotorized experiences.

Concerns for watershed protection in Alternative C are most likely to have a long-term effect on the availability of OHMV trails in the roaded natural and semi-primitive motorized settings of the Owyhee Front SRMA within the Limited - Level 1 designation. It is projected that a number of miles of trail would eventually have to be closed temporarily or permanently to stabilize or reverse erosion caused by off-highway motorized vehicles. To mitigate the adverse impacts on OHMV recreation from trail closures, new trails could be considered in less sensitive areas.

Alternative C would allow for locatable and fluid mineral exploration and development activities. Most mineral activities affecting recreation use are projected to be concentrated in the Silver City area and, to a lesser amount, the Owyhee Front. Mineral development in the DeLamar and Florida Mountain area would result in a change in ROS class from semi-primitive motorized to roaded natural, as well as reduce the quality of surrounding semi-primitive settings. The nature of open-pit mining, however, would preclude the public from utilizing much of the roaded natural setting for safety reasons during the time of mine operation. The quality of semi-primitive recreation experiences on lands immediately surrounding the mine operation would be reduced by visual and audio intrusions. For more detail on the DeLamar and Florida Mountain mineral activities, refer to the Stone Cabin Mine EIS. Additional mine sites are projected to be developed in the Silver City area resulting in a cumulative effect on recreational experiences ranging from exclusion, restricted access, and degradation of natural and scenic quality. Other mineral activities, such as the exploration for oil resources, could also cause new roaded natural corridors and cause localized reductions in the quality of recreational experiences in the semi-primitive motorized settings of the Owyhee Front and primitive to semi-primitive nonmotorized settings in the Owyhee Canyonlands region.

To protect the high quality of primitive recreational experiences in suitable wild/recreational river canyons from the effects of potential mineral exploration and development, Alternative C recommends withdrawal of affected lands from mineral entry. Withdrawals would affect the canyon systems of the North Fork, East Fork and South Fork Owyhee Rivers, and Deep-Current Creek. The remaining eligible river segments in the resource area would not receive withdrawal protection.

Should Congress not accept the BLM's national river or wilderness recommendations, the absence of such designations for lands adjoining the Paiute (El Paso) Gas Pipeline crossing of the East Fork Owyhee River could result in development of a high voltage powerline utility corridor in the Owyhee Canyonlands region. Such development would result in new roaded corridors and would eliminate or severely diminish primitive and semi-primitive nonmotorized recreation opportunities on surrounding canyon and plateau lands of the WSA complex. Development would also reduce the quality of semi-primitive motorized recreation opportunities on surrounding plateau lands (see the Owyhee Canyonlands Wilderness EIS for details).

Conclusion

Alternative C would provide for intensive management of recreation resources and recreation use on 349,294 acres in nine (9) special recreation management areas (SRMAs). Included in this acreage would be the recommendation for congressional designation of 163 miles of river canyon along the North Fork, East Fork and South Fork Owyhee Rivers, and Deep-Current Creek as national wild, scenic and recreational rivers to afford long-term protection to the rivers' nationally significance primitive recreation values.

Alternative C would significantly reduce OHMV opportunities in the resource area overall. The restrictive OHMV designations would eliminate ORV-type experiences from all areas other than the 101,612 acre Limited - Level 1 area found on the Owyhee Front. Only in this area could motorcycle/ATV trails and sand washes be used. Elsewhere, all OHMV use would be restricted to existing or designated roads and jeep trails (Limited - Level 4/5) and to some designated single-track trails for motorcycles/ATVs (Limited - Level 6); with the canyonlands of the Owyhee River system being "Closed" to motor vehicle use except at established road crossings. The Limited - Level 5 designation covering much of the northern half of the resource area (outside the Owyhee Front) would also preclude OHMV use until after May 31 of each year, thus eliminating or reducing recreation opportunities away from maintained roadways and a limited number of designated routes during the favored use period.

Much of the resource area (44%) would remain in semi-primitive settings. In VRM Class III/IV areas, woodland treatment projects would moderately to severely reduce the quality of semi-primitive recreation experiences until affected lands have recovered (25 to 50 years). Over the long term, treatment projects could improve the quality of recreational experiences, especially for hunters because of increased or stabilized game populations. Continued development of fences, however, is projected to contribute to a slight to moderate long-term decline in the quality of the free-roaming recreational experience in semi-primitive settings.

Within VRM Class III and IV areas, and eventually in VRM Class II-IMP areas, recreation opportunities would shift from primitive to semi-primitive motorized or nonmotorized settings because of woodland treatment projects. Burn and seed projects on sagebrush plateau lands could reduce the quality of semi-primitive nonmotorized experiences. There is also the potential for reductions in the quality of primitive and semi-primitive recreation opportunities from energy exploration and development should wilderness or wild river designation not occur along the East Fork Owyhee River.

VRM Class I and II areas prescribed in Alternative C would generally protect existing recreation settings and experiences except in areas of open-pit mining (Silver City area). Mineral activities would severely reduce the quality of semi-primitive recreation experiences and result in the shift of some semi-primitive motorized recreation settings to roaded natural settings. Prescribed recreation facilities and range improvements (including limited vegetation treatments) would not seriously affect primitive and semi-primitive nonmotorized recreation settings or experiences in VRM Class II areas.

Meeting the Objectives

Objective RECT 1: Provide for off-highway motorized vehicle (OHMV) use on public lands while protecting sensitive resource values.

Off-highway motorized vehicle designations in Alternative C would fall well short of meeting the objective of providing for OHMV opportunities within the resource area. The designations would severely restrict or eliminate the types of opportunities available in the most heavily used recreation areas in the northern half of the resource area (single-track trail riding, off-trail use, springtime use) in exchange for increasing the level of protection afforded to sensitive resource values.

Objective RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

The special recreation management areas identified in Alternative C would contain all lands needing special attention because of intensive recreation use and conflicts with sensitive resource values in predominately roaded natural and semi-primitive motorized settings, and all lands needing protection of nationally significant recreation and scenic values associated with primitive settings.

Objective RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Alternative C would provide permanent protection on 74% of the eligible river miles in the resource area under a suitable recommendation for the largest and most nationally significant of the canyonlands associated with the entire Owyhee River drainage system within the resource area. The remaining river segments in the resource area considered to be nonsuitable in Alternative C are mostly small tributary streams to those found suitable, some stream lengths of which are contained in the recommended legal descriptions for associated suitable segments.

Objective RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Alternative C would fully meet the objective by providing for continued developed recreational experiences at existing sites and by establishing direction in the development of new recreation sites throughout the resource area, particularly in the Snake River GRA where recreation use is projected to be most significant during the next 20 years.

Objective RECT 5: Develop a trail system that provides a range of motorized and nonmotorized recreation opportunities for the public's enjoyment of primitive, semi-primitive nonmotorized, semi-primitive motorized and roaded natural settings.

Actions identified in Alternative C would meet this objective because there would be adequate attention given to 1) meeting the need for more recreation facility (trail) development in the Snake River GRA to deal with increasing recreation demand for more diverse recreation opportunities, and 2) meeting the need for more public information on more diverse recreation opportunities.

Objective RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).
Alternative C would fully meet this objective.

Objective RECT 7: Retain at least 10% of the Owyhee Resource Area in a primitive recreational opportunity (ROS) setting.

Alternative C would meet this objective by providing long-term protection to existing primitive settings found on 10% of the resource area.

Wilderness

Change Agents

Vegetation treatments, fencing, water developments, OHMV activities, recreation facilities, utility corridors, and locatable and fluid mineral activities.

Impact Analysis

The 294,740 acres of wilderness study areas (WSAs) in the resource area (see Map WNES-1) are required to be managed under BLM's Wilderness Management Policy (IMP) to protect their wilderness characteristics; naturalness, and outstanding opportunities for primitive recreation or solitude. The IMP prohibits taking any action considered to adversely affect a WSA's suitability for congressional wilderness designation. An action is considered an impairment of wilderness suitability if: 1) it individually, or when considered collectively with other existing human imprints, makes the imprints of man substantially noticeable to a casual observer in the WSA as a whole, and/or 2) the action reduces the value of the WSA for wilderness as compared to other land uses. No actions have been identified in Alternative C which would impair wilderness values on WSA lands.

In Alternative C, as with all other alternatives, the recommendation for congressional designation of 195,980 acres of public lands as wilderness is carried forward. Within this acreage are 3,890 acres of non-WSA, Section 202 FLPMA study lands which have also been recommended for wilderness designation. Unlike WSA lands, Section 202 study lands are to be protected only from unnecessary and undue degradation under authority of Section 302 of FLPMA. No actions which would cause unnecessary or undue degradation have been identified for Section 202 lands in Alternative C.

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Alternative C provides direction for management of WSAs through the identification of various visual resource management (VRM) classifications and off-highway motorized vehicle (OHMV) designations. Alternative C would classify 71,332 acres as VRM Class I, 242,150 acres as VRM Class II, and 123,496 acres as VRM Class II-IMP (see Map VISL-C). It would also designate all WSA lands as "Closed" to OHMV use or as Limited - Level 4. These classifications and designations identify the level of development and uses allowed under the BLM Wilderness IMP for WSA and what would be allowed if nonsuitable lands are released from the IMP by Congress.

The VRM Class II and Class II-IMP areas would be the primary classification for WSA lands in Alternative C and are intended to retain the natural character of the landscape with the imprints of man substantially unnoticeable to the casual observer, the general principal guiding the IMP. Upon congressional release from the IMP, affected VRM Class II-IMP lands would become VRM Class IV areas. In this visual classification a broad range of range projects (livestock, wildlife and watershed) could occur. Rangeland management actions would occur in the nonsuitable Juniper Mountain WSAs in Alternative C. Alternative C identifies vegetative treatment projects in seral juniper woodlands in order to restore grass, forb and shrub species to sagebrush-grassland ecological sites. New fences and spring developments are also identified. A stream channel stabilization project could also occur. New roads and jeep trails would be generated as a result of woodland cutting projects. The OHMV Limited - Level 4 designation prescribes retaining vehicle use on existing roads and jeep trails, yet juniper cutting activities in the absence of the IMP would generate some new routes that could remain open for public use after the completion of the woodcuts. Overall, at least 12,900 acres of public land in the Juniper Mountain WSA complex would have substantial losses of wilderness characteristics. Naturalness and outstanding opportunities for solitude and primitive recreation would all be affected. Details concerning the loss of wilderness characteristics in the Juniper Mountain WSA complex are discussed in the No Wilderness Alternative presented in the Owyhee Wilderness Plan Amendment EIS.

Impacts on wilderness characteristics similar to those of the Juniper Mountain WSA complex, but less extensive and severe, are projected to occur in the juniper woodland areas of the North Fork Owyhee River WSA. The North Fork WSA would retain its special recreation management area (SRMA) designation on its nonsuitable areas, as well as its suitable areas should Congress not accept the BLM's wilderness recommendations. The SRMA would be managed under VRM Class I and II standards and a "Closed" OHMV designation, however, several designated routes would be allowed to remain in the SRMA. Consequently, woodland treatment projects (with accompanying access roads and trails), fencelines, and watershed stabilization projects in Class II areas are projected to be the minimal necessary to meet management objectives for these resources without notably altering the natural character of the landscape. The level of potential development is projected to be greater than would occur in the VRM Class I areas where virtually no rangeland development could occur. With VRM Class II areas, OHMV activity would be restricted to existing roads and jeep trails. Within the VRM Class I areas there are no roads or motorized trails. Alternative C would allow development of new recreational access roads to trailheads within nonsuitable (VRM Class II) areas found on the southern periphery of the North Fork WSA. The trailheads would service a recreational foot and equestrian trail system that would affect both suitable and nonsuitable lands in VRM Class I and II (see Map RECT-3C). The IMP permits trail development to enhance opportunities to experience primitive recreation activities within WSAs. Such a trail system is possible in VRM Class I, but the trail would be built to a lower standard (narrower, steeper grades and fewer bridged stream crossings) than would occur in VRM Class II in order to minimize its visual presence on the landscape. Overall, there are at least 10,350 acres of the North Fork WSA which would have slight to moderate losses of wilderness characteristic in Alternative C.

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The Owyhee River ACEC/SRMA lands contained in the Owyhee Canyonlands WSA complex would also be managed under VRM Class I/II and a "Closed" OHMV designation in the absence of wilderness designation. On these lands there would be no BLM initiated actions in Alternative C which would adversely affect wilderness characteristics (see Owyhee Canyonlands Wilderness EIS). Launch site developments, road maintenance to existing standards, and portage trail developments (East Fork Owyhee River) would help stabilize fragile sites that are currently concentrating recreational use. The developments would not attract additional recreational use since access roads would be retained at their current level of construction, a condition which tends to discourage driving for pleasure and sight-seeing.

The VRM Class II-IMP and "Closed" OHMV designations would also pertain to peripheral plateau lands of the Owyhee Canyonlands WSA complex. For these affected WSA lands, the change in VRM management following IMP release is generally not projected to result in activities that would substantially compromise existing wilderness characteristics. OHMV management would remain the same after IMP release. If reductions or losses of wilderness characteristics occur, they would likely result from mechanical drill seeding of rangelands to rehabilitate lands effected by wildfire. Mechanical seeding leaves a cultivated appearance on the landscape that could exist for many years. Details concerning impacts on wilderness characteristics in the Owyhee Canyonlands WSA complex are discussed in the various alternatives presented in the Owyhee Canyonlands Wilderness EIS. From development scenarios provided by the Owyhee Canyonlands Wilderness EIS, it has been estimated that as much as 32,190 acres of the Owyhee Canyonlands WSA complex in Idaho could eventually have diminished wilderness characteristics (naturalness) as a result of seeding projects over the long term.

There are two additional types of actions which could occur in Alternative C in the absence of wilderness designation: (1) utility corridor development and (2) locatable and fluid mineral activities. There is a high probability for establishment and development of an enlarged and less restrictive utility corridor along the Paiute (El Paso) Gas Pipeline which runs north-south through the Owyhee Canyonlands WSA complex just west of the Duck Valley Indian Reservation. The existing corridor is one-mile wide and use is currently restricted to underground developments only in the vicinity of the WSAs. The corridor is one of several routes which has been identified for future planning of high voltage powerlines to service interstate electrical needs of the western United States. Development of a corridor, in the absence of wilderness or wild river designation for the East Fork Owyhee River, would severely reduce or eliminate wilderness characteristics on 10,330 to 10,760 acres of WSA plateau and canyonlands adjoining the Paiute (El Paso) Gas Pipeline (WSA ID-16-49D and WSA ID-16-52). Refer to the various alternatives presented in the Owyhee Canyonlands Wilderness EIS for details on the El Paso utility corridor.

There is potential for locatable and fluid mineral exploration and development in the Owyhee Canyonlands WSA complex. Though currently identified as having low mineral development potential, there is a low to moderate possibility of some level of exploration activity associated with geological structures within or immediately adjacent to the river canyons. Despite the "unnecessary and undue" standards required by the 3809 regulations, any customary activity of an exploratory nature into the canyon walls of the Owyhee River system could cause irretrievable and irreversible impacts on wilderness characteristics (naturalness and outstanding opportunities for primitive recreation) on at least a localized basis in the wilderness complex. The disturbance would potentially be visible to river floaters who use the upper Owyhee River system in the three-State area of Oregon, Idaho and Nevada. For details concerning potential impacts from mineral activity along the Owyhee River, refer to the alternatives presented in the Owyhee Canyonlands Wilderness EIS (mineral scenarios were only developed for Oregon WSA lands in that EIS because of the favorability of mineral development). As with utility corridor development, the potential for mineral development in the absence of wilderness designation is subject, in part, to congressional action on wild river suitability recommendations for the North Fork, South Fork and East Fork Owyhee Rivers and Deep-Current Creek. There is also potential for exploration and potential development of oil and gas reserves on peripheral plateau lands of the Owyhee Canyonlands WSA complex. These are the same lands which could be affected by wildfire rehabilitation seeding projects. According to scenarios developed for the Owyhee Canyonlands Wilderness EIS, as much as 5,100 acres of Idaho BLM lands could be at least temporarily affected by energy exploration.

Conclusion

Implementation of Alternative C would ensure protection on WSA lands while they remain under the BLM Wilderness IMP. In the event of non-wilderness designation, there is a high probability that as much as 55,440 acres of the WSA lands in the resource area would experience a moderate to substantial lost of wilderness characteristics due primarily to vegetation treatment projects. The loss could be further increased by at least 10,330 acres in the absence of alternative national wild river designations within the Owyhee River WSA complex due to utility corridor development.

Meeting the Objectives

Objective WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

In compliance with BLM's Wilderness IMP Policy, Alternative C would ensure long-term protection of wilderness characteristics on Section 603 wilderness study lands and would not adversely affect wilderness values on Section 202 study lands.

Objective WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Alternative C is applicable to the Owyhee RMP only after congressional wilderness designation of select Section 603 and 202 study lands in the resource area. Any activity plan required because of wilderness designation would have protection of wilderness values as its primary objective.

Visual Resources

Change Agents

Vegetation treatments, fencing, water developments, watershed stabilization projects, wildlife guzzlers, recreation facilities, OHMV activities, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Alternative C prescribes managing all public lands in the resource area under one of five visual resource management (VRM) classes ranging from VRM Class I to Class IV.

VRM Class	Acres
VRM Class I:	71,332
VRM Class II:	242,150
VRM Class II-IMP:	123,496
VRM Class III:	144,785
VRM Class IV:	738,228

[redacted]

VRM Class I would be the most restrictive class in Alternative C where the intent is to preserve the natural character of the landscape. Class IV would allow substantial changes to the characteristic landscape. These classifications are defined in detail in Appendix VISL-1. Wilderness study areas (WSAs) are to be managed under the BLM Wilderness Management Policy (IMP) to preserve their wilderness characteristics, including naturalness. Under the IMP, WSA lands are managed so that the imprints of man remain substantially unnoticeable in any given WSA as a whole. This is the intent of VRM Class II management whether a WSA is present or not. Class II allows for maintenance of existing facilities and prohibits additional surface disturbing projects within WSAs. The IMP encourages preservation of WSAs, or portions of WSAs, where pristine conditions exist. This is the intent of VRM Class I lands which are generally found at the core of the WSAs and predominantly encompass canyonlands topography. The association between IMP for wilderness resources and VRM Class objectives is discussed in detail in the wilderness impact analysis. In summary, impacts on the scenic quality of WSA lands would not be impacted in Alternative C as long as the IMP stays in effect. If WSA lands are released from the IMP, the visual quality of some WSA lands would be affected in the same manner as projected below for the various project developments identified in Alternative C for VRM Class I through IV areas.

Visual impacts would be most extensive from vegetation treatments in VRM Class III and IV areas. Such treatments would not be allowed in VRM Class I areas and would be minor in VRM Class II areas in Alternative C. The degree and longevity of visual impacts from such projects is dependent upon the type of treatment and the type of vegetative community involved.

Vegetation Treatments

In the juniper woodland communities (predominantly in the Jordan Creek and northern half of the Owyhee River geographic reference areas), visual impacts would occur from prescribed fires in seral juniper stands and from harvesting seral stands for fuelwood. Alternative C prescribes burning up to 64,400 acres total over the next 20 years, about 3,200 acres per year. About one-half of this (30,300 acres) would be within the juniper woodland communities. In addition, commercial harvesting of juniper fuelwood is approaching 600 acres per year, and could approach 1,000 acres per year by the year 2000. Cutting and burning could affect many of the fuelwood harvesting areas.

Within harvest areas, during the cutting period and for a number of years afterwards, the scenic quality of affected clear-cuts would be substantially reduced by a nearly continuous scattering of slash piles, numerous stumps about 8 inches in height, and constructed roads and jeep trails. The textures and colors of clear-cut areas would contrast sharply with those of surrounding woodland communities or the remanent sagebrush-grassland communities. However, the general shape or form of the clear-cut openings and the line defining them would mimic that of natural openings found throughout the woodland region. As a result, the adverse impacts on visual quality would diminish as the viewing distance increases. Once the viewing distance reaches several miles (beyond foreground viewing) and the presence of slash would not be readily discernible, the visual impact would be minimal. As the clear-cuts regain an abundance of new understory vegetation (grasses, forbs and shrubs), and needles and bark fall from slash piles, the casual observer would not be readily able to distinguish between natural openings and clear-cuts. Mitigation of visual impacts for projects located in the background (generally greater than 3 miles) could be hastened through the use of post-cut prescribed fire. The fire would add a temporary (3 to 5-year) adverse impact on the landscape by blackening it, but would remove the contrasting cutting debris.

The duration of adverse impacts from a woodcut site viewed within the foreground (usually less than three miles) would be dependent upon whether the site receives a post-cut prescribed burn. Burns would generally occur from 2 to 5 years after tree harvesting. As with background viewing, the fire would generate its own adverse impacts on visual quality by adding a sharply contrasting black color to the landscape, but would eliminate the effects of slash piles. With the aid of wind, rain, snow and natural or planted revegetation, the visual effects from the blackened ground would disappear within 3 to 5 years. Only blackened stumps would remain as a reminder of the woodcutting. The stumps could remain for 20 years or more with their visual presence only being lessened by the growth of surrounding shrubs that provide screening. In the absence of a post-cut fire, which is projected to occur about 25% of the time, slash and stumps would be visible well beyond 20 years with stumps lasting 50 years or more.

With cutting and post-burn effects lasting from 10 to 50 years, and cutting projected to occur at a rate of about 600 to 1,000 acres per year, it is highly probable that juniper fuelwood harvesting could contribute to reduced scenic quality on about 17,000 acres by the year 2018. At this time, about half of the acreage (8,000 acres) would retain the severe, short-term adverse visual impacts projected while the remaining acreage would be in varying stages of recovery.

In the cases of juniper woodland communities where only prescribed fire would be used, the effects of fire on visual quality would also depend upon viewing distance as well as the size of the trees involved. When viewed from the foreground, burned areas would contain numerous charred to partially charred tree skeletons and blackened earth and rock. Visual quality would be severely degraded by contrasts in line, form, color and texture. The larger the trees involved, the greater the visual degradation would be. Partially burned trees could retain reddened dead foliage for 3 to 5 years. The reddish color may be seen for several miles, well into background viewing areas. Only after the needles have dropped would trees in close-background areas become indiscernible on the landscape. The presence of burned background trees would also be lessened as the blackened bark falls away to leave a light grayish wood color not readily detectable behind a back drop of sagebrush-grassland communities. This process could take more than 5 years. As in the foreground, burned larger trees would have more of a visual impact in the background areas by requiring greater viewing distances before visual impacts would become indiscernible. Foreground viewing of barkless tree skeletons would remain for as long as 50 years or more depending upon the size of trees burned.

Assuming at least a 5-year period before fire evidence would be reduced, and assuming that 1,500 acres of juniper woodlands would be burned each year independent of woodcut areas, it is highly probable that there would be as much as 7,500 acres of woodland landscape showing the more severe adverse visual impacts from prescribed fire each year. By the year 2018, the woodland communities could cumulatively show another 22,500 acres of residual burned skeleton forests having a lesser adverse impact on visual quality. In summary, it is highly probable that as much as 30,000 acres would have some degree of visual degradation by the year 2018. Since prescribed burning would be done annually to control the juniper woodland community, visual impacts from burning would always be present. However, over time the degree of impact would lessen as reburns would be affecting smaller and smaller age and size classes of encroaching seral trees.

In those areas where prescribed fire would affect sagebrush-grassland communities, the visual impacts would be minimal and of short duration. Prescribed fires in these plant communities would eliminate old-age sagebrush and return the ecological site to an earlier successional stage. This would leave a vegetative mosaic of open grasslands intermingled with remnant stands of big sagebrush on deeper soiled swale sites or low sagebrush on shallower, often stony, low ridgeline sites. This intermingling of line, form, color and texture caused by the variety of vegetation and rocky soil profiles, often including low, meandering bedrock ledges or plateau breaks, would be considered more scenic than a homogeneous landscape of sagebrush. The adverse effects of fire in the sagebrush-grassland communities would come immediately after the fire and for the following one to three growing seasons when the blackened evidence of the fire persists. The fires would leave behind few vegetation skeletons. Those present would be small (sagebrush) and would be rapidly broken down by livestock and wildlife passage, wind, rain and snow. Because of the rapid recovery of visual quality on sagebrush-grasslands, and the relatively small amount of acreage to be burned at scattered locations, prescribed fire is not projected to be a major contributor to the cumulative impact of vegetation treatments in the resource area.

Cumulatively for burning and cutting, it is projected that more severe adverse visual impacts would occur on a total of 15,500 acres per year after the year 2018. An additional 30,000 acres would show a lesser impact due to natural recovery. These impacts would occur predominantly in juniper woodland communities. This acreage is about 18% of the woodland communities. There is currently no way to quantify how many acres of viewshed would ultimately be affected, either as foreground or background, by vegetation treatments. But given the type of topography and vegetation present, and the subsequently large viewsheds possible for any treatment site, some type of treatment site, whether detected as such or not, would be visible from nearly any observation point on 30% to 50% of the woodland region. Without the limitations placed on treatments in VRM Class I and II areas, this percentage could exceed 50%.

Alternative methods of vegetation treatment (chaining and chemical spraying) would produce visual effects similar to those associated with cutting and burning. In the case of spraying, blackened trees would be absent yet reddened foliage and tree skeletons would persist. Chaining would uproot trees rather than leave behind stumps.

Fencing

In VRM Class I areas, there would be no rangeland improvements in order to preserve pristine conditions. In VRM Class II areas, new range improvement projects should be less than those allowed in VRM Class III and IV areas in order to retain an essentially natural landscape. Existing projects would be reconstructed, if necessary, to meet a higher visual standard at the time of scheduled or required maintenance. Placement of fencelines across landscapes to exclude livestock from wetlands or to delineate and administer allotments and pastures would not directly affect visual quality, particularly in woodland areas. The fences would generally be unnoticeable on the landscape from short viewing distances. What would become noticeable would be the jeep and livestock and game trails which would eventually parallel one or both sides of the fenceline, and the differences in forage utilization that could result from differential levels of livestock use. The jeep trails would result from fence maintenance or off-highway vehicle recreation activities. These features could become substantially noticeable in what may have been an otherwise natural landscape. These effects are quite noticeable in the Owyhee Front SRMA where extensive OHMV use occurs and numerous miles of fence were constructed in the 1980s. Differences in forage utilization across fencelines can also produce a line separating the same vegetative community into two distinctively contrasting colors brought about by differences in the amount and type of forage consumed. The same effect, but more severe, can be caused by fenced seedings. There are examples of this throughout the resource area, particularly along fencelines which delineate boundaries between Federal, State and private lands as well as highway rights-of-ways.

Stream riparian and spring development exclosure fences can cause both beneficial and adverse impacts on visual quality on a localized basis depending on location. These fencing projects usually include an exclosure fence to exclude livestock from the riparian area, a headbox buried beneath the ground to trap water, and a buried water pipe that extends outside the exclosure to a trough (usually green). Construction would result in minimal surface disturbance and lead to an overall improvement in vegetative cover within the exclosure. Lush riparian communities add to the visual quality of the landscape through increased diversity in line, form, color and texture, as well as contribute to increased water which reflects color. However, the physical isolation of riparian areas from livestock use can also contribute to concentrated trampling and removal of vegetation outside the exclosure fence. In Alternative C there is the potential for turning a number of viewsheds into ribbons of lush, green riparian vegetation bordered by livestock and game trails along the exclosure fences, generating lines and forms that would not be in harmony with natural features. There is the potential to create "boxes" of riparian landscapes that could affect the visual quality of water courses. To mitigate this visual impact in sheer-walled canyon areas of the Owyhee River GRA, fences could be placed among the sheer topographic breaks that surround the canyons. Elsewhere, mitigation would be more difficult in predominately V-shaped drainages because fences would generally have to be placed in the bottomlands adjacent to the riparian areas, forcing livestock and game to trail along the fencelines. In these areas fences could be constructed to not run in straight lines for any great distance, to not remain an equal distance from the stream course along the length of the riparian area, and to tie into prominent natural features where possible. With such mitigation, the extent of fence development in Alternative C would not be sufficient to substantially alter the overall characteristic landscape of the resource area.

Livestock Reservoirs

As with fences, livestock water impoundments (reservoirs) can be designed to reflect concerns over visual quality depending upon the affected area's VRM classification. A higher visual standard would be achieved by emphasizing the use of line and form in the layout and construction and reconstruction of earthen dams. These two elements of the natural landscape would need to be mimicked during construction of the dam and impoundment area in order to successfully blend a reservoir into the natural landscape. Generally, the blending would require the use of curved lines to define a crescent-shaped, shallow-sloped dam form (the dam slopes to be of equal or lesser gradient than surrounding topography that defines the stream channel or draw). Such a dam would appear as a "natural" extension of surrounding topographic relief and would assure that the surface area of the impounded water appears as a small circular, oval or "teardrop" lake formation that harmonizes with the surrounding landscape characteristics. The presence of surface water would enhance the scenic quality of landscapes.

Restoration of native vegetation around the reservoir site could also lessen the visual impact of dam construction and surrounding surface disturbances by restoring the original landscape elements of color and texture. However, reservoirs, by their very purpose, concentrate livestock use, which inhibits or prevents vegetation restoration. Vegetation restoration would also be difficult when borrow pits are used to construct dams. Borrow pits remove A and B soil horizons; leaving behind soil substrates that would be generally unsuitable for vegetative growth. These exposed substrate areas would not only reduce revegetation potential but usually would have a notably different color than surface soils which would make the dam site highly visible at greater viewing distances even though line and form standards would be met for the dam itself. Consequently, in VRM Class II areas, the use of dam building materials from outside the water impoundment area would be prohibited.

In VRM Class III areas, reservoir construction could occur without restricting numbers and attempts would be made to construct dams to the standards required in VRM Class II areas. Borrow pits could be used with discretion and top soils would be set aside to recover the pit area. In VRM Class IV areas, reservoirs could be constructed using more conventional methods with dam faces at 2:1 slopes (vertical:horizontal), straight lines defining the front of the dam as well as the water line behind the dam, and the use borrow pits. Such methods could introduce unharmonious straight, vertical or steep diagonally lines and "sharp" forms into the desert plateau landscape comprised of horizontal straight lines and subordinate curved or wavy lines and "soft" forms. However, in steep, mountainous terrain or draws, steeper diagonal lines and sharper forms may be appropriate to mimic terrain features. Since most of the resource area would be in VRM Class IV, this type of construction could continue to be the rule rather than the exception. However, there is currently a policy to build all new reservoirs to Class II standards whenever possible, allowing for deviation to the Class III and IV standards where necessary because of specific physical site constraints.

Pipelines

Water pipelines extending for many miles from the water source are often found in association with spring developments and wells. There is technology available to keep surface disturbances associated with laying pipelines to a minimum in deeper soil types. In shallower, rocky soils, bulldozed trenches could be required, thereby enlarging the linear disturbance which contributes to color, texture and line disharmony on the landscape. While disturbances could readily heal in many areas within 5 years, the pipeline would often parallel a maintenance road that would perpetuate the visual impact of the pipeline. The troughs used on pipelines would not be obtrusive, but could lead to the localized loss of vegetation from concentrated livestock use, somewhat reducing visual quality.

Watershed Stabilization Projects

Watershed stabilization projects would be used to secure eroding streambanks and prevent further erosion in side slope gullies, usually the result of concentrated grazing by livestock and recreation use. The projects would use unlimbed juniper trees to line stream channels (attached by steel cables) and rock gabion dams or wooden planks. Initial placement of these projects would include disturbance to riparian vegetation and soil areas or, in the case of juniper structures, would leave the stream lined with numerous, unsightly dead trees and an occasional exposed steel cable. Such disturbances would be short-lived. Disturbances associated with rock gabion dams would be mitigated by riparian vegetation regrowth and channel siltation in less than 5 years. Juniper logs would become imbedded in streamsides, as intended, within 5 to 10 years. Once vegetation is restored, usually to a degree beyond that present prior to the project, the affected stream channels would show an overall improvement in visual quality. The improvement would be attributed to the increased abundance, and sometimes diversity, of riparian vegetation. Increasing riparian vegetation along canyon bottoms would enhance the overall scenic quality of the landscape by enriching it with color and texture. These efforts could also improve the yearlong abundance of surface waters that would enhance visual character.

Wildlife Guzzlers

Wildlife guzzlers would consist of a fence exclosure and an encatchment system that would look like a corrugated, square to rectangular piece of roofing set just above ground level. Such projects would usually be associated with dry climate areas of the Owyhee Front. As such they do not release water to generate riparian vegetation screening; but sagebrush and grasses could become dense within the exclosures. To mitigate the visual intrusion of these small projects, the guzzler sites could be painted a compatible color and placed to not draw attention within the affected viewshed.

Recreation Facilities and Activities

Existing and proposed recreation site developments in Alternative C are few and widely scattered and generally would not affect the scenic quality of the resource area as a whole. Recreation sites have been designed to reflect concern for the four basic elements of the characteristic landscapes found in their viewsheds; form, color, line and texture. The Owyhee Front OHV Trailheads and Jump Creek Recreation Site facilities would alleviate OHMV-generated soil damage, public health and sanitation concerns, and excessive soil damage caused by indiscriminate foot trailings in sensitive vegetation communities. All these factors are contributing to a decline in visual quality at frequently used recreation sites. Recreation site developments similar to the North Fork Campground that could occur in Alternative C would initially modify the natural landscape. Yet, over the long term, the projects would reduce visual damage to recreation sites from concentrated recreational use as more and more people venture into the Owyhee Uplands plateau.

The foot/equestrian trail system prescribed in Alternative C for the North Fork Owyhee River region would allow increased public opportunities to experience the exceptional scenic qualities of the Owyhee Uplands plateau. At the same time, this development would result in both initial construction impacts and localized visitor use impacts. Initial impacts would include construction of trails along (lower North Fork) or across (upper North Fork) river channels currently unaffected by any development. Trails would average 2 to 4 feet in width, have longitudinal gradient objectives of 10% or less, and have constraints on the frequency of bridge crossings. Such trail characteristics would produce a trail system that would have minimal effects on visual quality. Vegetative screening from juniper woodlands and moderately dense to dense riparian communities coupled with careful location of necessary trail switchback areas (nestle behind rock escarpment) and bridge crossing (keep one bridge out of sight of the other) would keep the trail substantially unnoticeable on affected landscapes as a whole. Recreation use of the trails would result in localized trampling of vegetation and soil compaction at popular primitive campsites, leading to localized adverse visual impacts. These impacts could be kept to a minimum by periodically resting select campsites. Without such a trail system somewhere in the Owyhee Canyonlands to help manage recreation use, there is a moderate to high probability that unregulated foot traffic associated with increasing backpack use would eventually develop indiscriminate trailings along the river corridors similar to those present in Jump Creek Canyon. Monitoring of the portage trails around several rapids on the East Fork Owyhee River suggests that it would take a relatively small amount of recreation use to cause a serious trailing and erosion problem of talus slopes in the canyonlands. These trailing cause considerably greater visual degradation than would a constructed and maintained trail system.

Implementation of off-highway motorized vehicle designations in Alternative C would help mitigate visual impacts on the Owyhee Front by prohibiting hill climbing activities at all but the Hemingway Butte site. Under the general authority of emergency closures (43 CFR 8340) and the shift from a Limited - Level 1 to a Level 5 designation, closing some sites to prevent further OHMV-related visual damage is projected. Through continued public education, maintenance and enforcement under the Limited - Level 1 designation, additional hill climbing areas in the West Rabbit Creek area and the Owyhee Front SRMA as a whole would be reduced or eliminated and OHMV trails would be limited to their current extent.

Elsewhere in the resource area, Limited - Level 4/5/6 designations in Alternative C would restrict development of new jeep trails and would allow for some orderly development of single-track trails in a portion of the Owyhee Mountains. Area-wide restrictive OHMV designations would help reduce off-road activity overall. However, unauthorized OHMV travel is projected to continue in some areas despite the restrictive designations.

Energy and Mineral Development

Open pit mining operations at the Stone Cabin and DeLamar Mines are visible from many areas within the Silver City area and Jordan Creek watershed (VRM Class II) and surrounding VRM Class III and Class IV lands. Impacts on visual quality vary within the region depending upon the viewer's elevation and slope aspect. When in full view of the mining operation, impacts on visual quality are significant in both the short term and long term, and can only be partially mitigated. Cumulative impacts on visual quality in the Snake River and Jordan Creek geographic reference areas from past and existing mining are already considered to be substantial. Localized visual degradation is projected to continue from ongoing mineral exploration and development activities in the Silver City Range. There is currently a low probability that mineral development of the magnitude of DeLamar and Stone Cabin mines would occur in other nearby mountains, as adjacent areas have been thoroughly explored and appear to have low mineralization.

While much of the Owyhee River geographic reference area is currently considered to have low mineral development potential, there is a low to moderate possibility that exploration activities could come to this region of the resource area and also cause an irreversible and irretrievable loss of visual quality. Of greatest concern are the Owyhee Canyonlands where geological structures associated with fracturing and faulting invite exploration. As with the steep slopes of the Owyhee Mountains, exploration activities which would deface the canyon walls of the Owyhee River system cannot be rehabilitated, partially destroying what is considered by many a national scenic treasure. Only wilderness designation or the wild river designations prescribed in Alternative C would ensure the long-term protection of the North Fork, East Fork and South Fork Owyhee Rivers, and Deep-Current Creek by withdrawal of public lands from mineral entry. For details concerning impacts of mineral exploration and development in the Owyhee Canyonlands, refer to the Owyhee Canyonlands Wilderness EIS.

Along the Owyhee Front, and in the Owyhee Canyonlands area, there is a low potential for the exploration of oil and gas resources. For the purposes of environmental analysis, the Owyhee RMP provides a development scenario relating to these resource uses. In both areas, oil and gas activities would introduce a series of small facilities to explore and extract discovered reserves. On the plateau surrounding the Owyhee Canyonlands, such developments would seriously contrast with the characteristic elements of the vast, open, relatively flat natural landscape. Viewsheds have the potential to be quite large. It is projected that 5,100 acres of plateau lands would have scenic quality substantially reduced by oil and gas activities in the scenario given in the Owyhee Canyonlands Wilderness EIS. Visual impacts could not be notably reduced by alterations in facility design and coloring. Along the Owyhee Front, rolling, highly convoluted peneplain topography could be used to mitigate the developments. However, because of their vertical character as compared to the somewhat horizontal character of the natural landscape found in the Owyhee Front as a whole, some level of substantial impact on visual quality is projected in very localized viewsheds.

Utility Corridors

The Owyhee Canyonlands Wilderness EIS also provides a development scenario for a high voltage powerline utility corridor through WSAs ID-16-49D and 16-52 lying just west of the Duck Valley Indian Reservation. In the alternatives presented in the wilderness EIS there are 10,330 to 10,760 acres of WSA lands where scenic values could be substantially reduced by powerlines in the absence of wilderness designation. The impact would be caused by the introduction of large, vertical, columnar forms and vertical lines of towers as well as surface disturbances from construction and maintenance roads into a vast, open, relatively flat plateau landscape. It is projected that an additional 25,000 acres of non-WSA lands could also be affected by utility corridor development. This visual impact could be mitigated or prevented by the alternative wild river designation for the East Fork and South Fork Owyhee River.

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[redacted]

Conclusion

Implementation of Alternative C would result in the widespread degradation of scenic quality in the woodland communities of the resource area from vegetation treatment projects. It is projected that about 18% (45,500 acres) of the woodland communities would exhibit slight to severe impacts on scenic resources over the next 20 years. Affected viewsheds in the woodland region could exceed 30% of the land base. However, over the long term (20-50 years), the vegetation treatments would produce a highly scenic landscape diverse in the four basic landscape elements (line, form, color, and texture). Visual degradation to a moderate to severe degree in also projected to occur from ongoing mineral exploration and development activities in the Owyhee Mountain Range. Range improvements combined with recreational use (mostly OHMV activity) and small scale mineral activities would cause localized slight to severe adverse impacts that would eventually contribute to an overall slight decline in the scenic quality of the resource area. Though initially disturbing natural landscapes, the development of recreation facilities to manage both motorized and nonmotorized recreation use would have some beneficial long-term localized impacts on scenic quality at isolated, specific sites or areas.

In the absence of wilderness or wild river designations in the Owyhee Canyonlands region, utility corridor developments would be likely to cause severe, adverse visual effects on as much as 35,760 acres. Should fluid mineral exploration also occur on the plateau surrounding the Owyhee River, an additional 5,100 acres could have substantial adverse visual impacts during the exploration period, or for the long term if reserves are discovered. Locatable mineral activities in the canyonlands could also degrade highly scenic areas.

Meeting the Objectives

Objective VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Alternative C would fully meet this objective because it provides for a broad range of visual settings to compliment the resource area's recreational opportunities, including VRM Class I designations, to protect the highly natural and highly scenic areas of the resource area.

Cultural Resources

Change Agents

Scientific collection, mining activities, ACEC designation, OHMV activities, vandalism, livestock grazing, wildlife habitat exclosures, streambank stabilization, acquisition and weathering and decay.

Impact Analysis

Planned actions which produce adverse impacts on cultural resource sites are limited by management procedures to scientific collection and excavation, and would only occur in situations where scientific research by an accredited entity (such as a university or other research organization) is permitted. These impacts would be mitigated, however, by the compilation of scientific data which are deemed to be significant by the archaeological profession. Beneficial impacts are produced by management strategies designed to preserve scientific data for future use, or for recreational or educational use. In Alternative C this latter category includes the protection accorded to the Oregon Trail and the existing Guffey Butte/ Black Butte, Silver City and DeLamar National Register Districts.

[redacted]

Adverse impacts which occur to cultural resource values as a result of the implementation of projects generated by other resource activities are generally diminished by the performance of project specific cultural resource inventories in advance of project implementation. If it appears (as a result of a cultural resource inventory) that a cultural resource site would be adversely impacted by project implementation, the project be redesigned to avoid the impact. Should this not be possible, adverse impacts would be mitigated by appropriate strategies, including scientific excavation and collection, depending on the significance of the site in question. A significant exception to this would come from projects conducted under the Mining Law of 1872. It is often not possible to respond within a reasonable time frame to potential adverse impacts caused by mining operations.

Impacts from minerals related projects would be mitigated somewhat in Alternative C by the designation of an Area of Critical Environmental Concern (ACEC) in the Rooster Comb Peak area. The ACEC designation requires a Plan of Operations to be submitted for any minerals action proposed within the ACEC area, and an extension of the time period for which response is required. This extended time frame would provide a greater opportunity for the mitigation of damage to significant cultural resource sites.

Additional ACEC designations prescribed in Alternative C are Lambert Table and Sinker Creek. Management actions designed to protect or enhance cultural resource values within these areas include a limitation of OHMV activity in the Sinker Creek area to afford extra protection to the Oregon Trail and associated historic sites; and a change in the livestock turnout date in the Lambert Table area to protect significant prehistoric cultural resource sites from the effects of livestock trampling.

Additional adverse impacts on cultural resource values would occur from natural weathering and decay.

Beneficial impacts on cultural resource sites could occur as a result of projects generated by other resources. Wildlife exclosures could have the effect of isolating a cultural resource site from adverse impacts from livestock grazing, riparian treatment plans could benefit cultural resource sites by providing streambank stabilization, restrictions on OHMV use could lessen the effects of vandalism, and lands actions taken to block up Federal land holdings could facilitate the management of large clusters of significant cultural resource sites.

Cultural resources are fragile and non-renewable, and adverse impacts are generally cumulative through time. Therefore, short-term impacts (such as a single occasion of vandalism) could increase in severity from natural forces (erosion, etc.) so that the long-term (20 year) effect increases in severity. In Alternative C all of the sites known to be deteriorating from the effects of change agents would be visited to determine site condition and mitigation needs. It is possible that during this period of time some of the 444 sites known to be deteriorating would be destroyed, however a large number would be afforded adequate protection.

Conclusion

Beneficial effects would be appreciable from actions taken to actively manage cultural sites, such as site monitoring to determine rate of deterioration, and the development of site treatment plans, and from ACEC designation. Other beneficial effects would accrue as a result of the implementation of land treatment programs (riparian, wildlife exclosures, etc.) land exchanges and recreation program restrictions to OHMV.

Fewer adverse impacts (than Alternatives A and B) would occur to the majority of sites known to be deteriorating from the effects of change agents, including minerals program actions, livestock trampling, and natural forces.

The overall effect over the duration of the plan would be generally beneficial.

Meeting the Objectives

Objective CULT 1: Protect known cultural resource values from loss until their significance is determined.

5 years: This objective would be met.
20 years: This objective would be met.

Objective CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

5 years: This objective would be met.
20 years: This objective would be met.

Objective CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

5 years: This objective would be met.
20 years: This objective would be met.

Hazardous Materials

Change Agents

Land use authorizations and mining activities.

Impact Analysis

The Bureaus approach to hazardous materials management on public lands in this and all alternatives (1) seeks to prevent the generation and acquisition of hazardous wastes; (2) is intended to reduce the amounts and toxicity of wastes generated; (3) provides for the responsible management of waste materials in order to protect the natural resources as well as the people who live and work on and those who use Bureau-managed lands; and (4) provides for aggressive clean up and restoration of Bureau lands that are contaminated by waste materials.

All proposed activities on public lands would be thoroughly analyzed as to whether materials potentially hazardous to the environment and the public welfare would be affiliated with the activity. A full disclosure of all hazardous materials, their use, storage, transport, and disposal would be required prior to authorization.

The largest hazardous materials site in the resource area is the DeLamar Mine. The cyanide heap leach pond and cyanide pond are on public lands and are permitted by the State of Idaho. Large quantities of chemicals and fuels are transported over Bureau administered roadways as part of this mining operation. Operation of the Stone Cabin Mine would require additional chemicals and fuels.

Conclusion

The overall impact of Alternative C on hazardous materials management would not be substantial.

Meeting the Objectives

Objective HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. This objective would be met.

Areas of Critical Environmental Concern

Change Agents

Relevant change agents for each area are listed below. The impact analysis for each of these change agents applies to those areas where identified. Impacts on specific areas are addressed where notable. See Table ACEC-4C for a tabular impact analysis summary.

- Guffey Butte/Black Butte Archaeological District: recreation use.
- Owyhee River Bighorn Sheep Habitat Area: livestock management, recreation use and OHMV activities.
- Boulder Creek Outstanding Natural Area: livestock management.
- North Fork Juniper Woodland Outstanding Natural Area: water developments, livestock management, fencing, recreation use and OHMV activities.
- Cinnabar Mountain: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Coal Mine Basin: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities and recreation use.
- Hells Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities and mineral materials activities.
- Jump Creek Canyon: fencing, fire management, fluid minerals activities, mineral materials activities, recreation use and OHMV activities.
- Juniper Creek Watershed: livestock management, juniper removal, fire management, locatable minerals, recreation use and OHMV activities.
- Juniper Mountain: water developments, livestock management, fencing and recreation use.
- Lambert Table: livestock management.
- McBride Creek: rights-of-way, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Pleasant Valley Table: livestock management, juniper removal, fire management, fluid minerals activities and recreation use.
- Rooster Comb Peak: rights-of-way, juniper removal, fluid minerals activities and OHMV activities.
- Sinker Creek: rights-of-way.
- Sommercamp Butte: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- Squaw Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- The Badlands: rights-of-way, water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- The Tules: recreation use.
- Upper Deep Creek: water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.

Impact Analysis

Surface, subsurface, and overhead rights-of-way in portions of several areas (Juniper Mountain, Lambert Table, and portions of Rooster Comb Peak) would have no adverse impact on the principal resource values identified. Juniper Mountain and Lambert Table are large and roaded, and, except for Rooster Comb Peak (VRM Class II), have typically not been recognized for their scenic values. The cultural and watershed values would be maintained in these areas since clearances would be conducted prior to granting any right-of-way. However, depending on the type of right-of-way, wildlife values could be adversely impacted through habitat loss and other incurred disturbances. Managing some areas for rights-of-way "avoidance" would have no adverse impact. Such areas typically have existing roads or radio towers within their boundaries. The "avoidance" constraint allows existing facilities to be maintained and encourages other route selections for new projects. Excluding rights-of way within WSAs, areas with high scenic or biological values, areas that are currently unroaded and areas where roads would cause severe degradation would have a beneficial impact on these environments. Scenic and biological qualities would be maintained by precluding ground disturbance and aerial obstructions.

In Alternative C, 13 spring developments, 11 reservoirs, and 22 miles of pipeline and associated troughs are identified. The restrictions on water development placement identified for most areas would have either no impact or a beneficial impact on the identified values. Botanical, wildlife and scenic resources would generally benefit from restrictions or prohibitions on water developments, as ground disturbing actions and new livestock concentration areas would be precluded. Weed introductions would be minimized as would conflicts with special status plants. Scenic values would be maintained by restricting the potential for visual intrusion. In areas where water projects could still be developed, adverse impacts on botanical and scenic values would be both short- and long-term. Because clearances would be conducted for all projects prior to authorization, cultural resources would not be adversely impacted.

The overall impact of prohibiting or restricting salt placement and grazing use would generally be beneficial for the vegetative, cultural, scenic, and wildlife resources of the areas. Better control over salt placement would prevent trampling and soil compaction from degrading sensitive resource sites. Prohibiting livestock from Jump Creek and Squaw Creek and restricting livestock use in areas recognized for their botanical resources, would increase the value of such areas as rangeland reference areas and RNAs.

Restricting the construction of pasture fences that could potentially increase grazing use in a given area would have a long-term beneficial impact on the vegetation and scenic quality of these areas. The 52 miles of pasture fence identified for construction accompanied by lower stocking rates would have a short-term adverse impact on the vegetation during and immediately following construction, but over the long-term, the vegetation is projected to benefit. If not carefully positioned, the scenic qualities of some areas would be adversely impacted by pasture fence construction. Restricting or prohibiting exclosure development would have a beneficial impact on the areas, as exclosures would be built only if they excluded livestock or lowered the grazing use of the area, and did not alter the scenic quality. Twenty-four miles of exclosure fence are identified in Alternative C. The overall impact is expected to be similar to Alternative A. Fewer exclosure fence miles would be built in this alternative, but livestock preference adjustments and the July 15 riparian cut-off for less than satisfactory condition riparian areas would similarly protect most areas.

The discussion of juniper removal is not applicable to eight of the twenty areas, and has been identified as a Change Agent for only four of them - Juniper Creek Watershed, Rooster Comb Peak, The Badlands, and Upper Deep Creek. Only Rooster Comb Peak and The Badlands are proposed for ACEC designation in this alternative. Prohibiting juniper cutting or burning in these two areas would have a beneficial impact on their high scenic values, and would also benefit the special status plant species and RNA/rangeland reference area qualities for which The Badlands has been recognized. In Alternative C, 30,300 acres of juniper are identified for burning, 25,400 fewer than in Alternative A. The same number of acres (17,000) are identified for cutting in Alternatives A and C.

Fire management actions would be restricted and in some cases prohibited in Alternative C. A generally beneficial short-term and long-term impact is projected. By restricting fire suppression to those instances where life or property are threatened, natural plant recovery would be allowed to occur. This is consistent with the RNA management concept where relatively unaltered areas are treated as "control" or reference sites for evaluating resource management practices, for conducting research and for educational purposes. Populations of special status plants, many of which occur in sparsely vegetated habitats, would benefit from restrictions on fire suppression activities which could be highly destructive to some populations. Scenic values would be maintained by limiting the use of heavy equipment which often leaves major scars. Restricting fire vehicle use to existing roads in those areas where roads are present would provide for protection of facilities both on site and on adjacent ground, while providing for resource protection.

Fire rehabilitation restrictions would have a beneficial impact on the areas. Except under threat of severe erosion where sites were already dominated by exotics, and where the principal resource (i.e., special status plants) can be avoided, no seeding would be permitted in order to allow natural regeneration of high ecological condition sites. If severe erosion or invasion by annuals of special status plant sites is projected, seed or seedlings of native species may be used for rehabilitation of these problem areas by aerial or hand planting methods only. Alternative C provides for the determination of rehabilitation suitability on a site specific basis.

In Alternative C, the constraints (closures) on fluid minerals activities in eight additional areas (Cinnabar, Coal Mine Basin, Hells Creek, Jump Creek, McBride Creek, Pleasant Valley Table, Squaw Creek, The Badlands) would have either a beneficial impact or no impact on the identified values in each of the areas. No impact would occur in existing ACECs or special management areas where fluid mineral constraints are currently in place. While fluid mineral development is unlikely in most of the areas given their geology, closures and no-surface-occupancy constraints are proactive measures that would preclude the potential for exploration disturbance, a more likely scenario. Leaving portions of several of the larger areas (i.e. Juniper Mountain, Lambert Table, Rooster Comb Peak) in an "open-subject to standard terms and conditions" or a "no surface occupancy" category would have no impact or a slight adverse impact on these areas should fluid mineral exploration and or development occur. The prevalence of existing roads for access and the opportunity to establish management stipulations for protection of identified resource values would largely preclude adverse impacts.

Constraints on mineral materials activities would cause short-term and long-term beneficial impacts. Closures to mineral material disposal would best protect the botanical, wildlife, scenic, and cultural resource values requiring special management, given the uncertainty of future mineral material needs and technological advances. Left partially open or open to mineral material disposal are those large, relatively well-roaded areas (Juniper Mountain, Lambert Table, Rooster Comb Peak) with high cultural and watershed values. Road accessibility in these areas, the nature of the identified special resources, and the discretionary character of mineral material actions are such that the disposal of mineral materials could occur with no long-term adverse impacts on the identified resources. However, both short-term and long-term adverse impacts on other resources (i.e. vegetation, wildlife) could occur on selected sites.

Locatable minerals constraints would have a beneficial long-term impact on the scenic, biological, and cultural resources within the areas identified for special management. The few areas not recommended for withdrawal from mineral entry would be beneficially impacted in that designation as an ACEC requires the development of a plan of operation for all mining disturbances including those less than five acres. Plans of operation permit a greater measure of protection for all resources since resource-protecting stipulations would be included. Areas with moderate mineral potential combined with relatively low resource values were not recommended for withdrawal. Withdrawal was also not sought for Cinnabar Mountain, as a validity examination (part of the withdrawal process) would likely find the mineral value of this area to be of uncommon variety, and a withdrawal could not be authorized under the existing mining law. Withdrawal was sought in areas with concentrations of special status plant species where mineral validity is uncertain. If determined invalid the land could be withdrawn and the species protected. However, if determined valid, the claims could be mined.

The impact of designating an additional 46,405 acres of SRMA land, to be incorporated into existing SRMAs, would be similar to Alternative A. SRMA increases would affect only Guffey Butte/ Black Butte, Sinker Creek, and possibly Squaw Creek. Some habitat deterioration from increased human use would be expected to occur. Wildlife displacement and increased disturbance and removal of cultural artifacts would increase with an increase in use over the next twenty years. Reducing the size of the Jump Creek SRMA by more than 8,000 acres could potentially have a beneficial impact on this area, if overall human use of the area also declined. Because of the popularity of the area and its proximity to the Treasure Valley, this is probably unlikely.

Designation of 163 miles of river as national wild, scenic, or recreational, 69 miles more than Alternative A, would affect North Fork Juniper Woodland, Juniper Mountain, Lambert Table, the Owyhee River Bighorn Sheep Habitat Area, and The Tules. Long-term impacts are expected to be adverse due to increased public use, although these areas would also benefit from the mineral withdrawal associated with congressional river designations.

OHMV designation would have a beneficial impact on areas recognized for the good or excellent condition of their plant communities, on wildlife, on scenic and wilderness qualities and on special status plant species. As recreational use of the Owyhees increases, particularly of its rivers, Alternative C would preclude the development of access roads or trails into currently unroaded areas, and discontinue use in those that are particularly sensitive. Due to the topography (i.e. deep canyons unsuitable for OHMV use) of some areas, a "closed" OHMV designation would have minimal impact on the OHMV user. Changing the OHMV designation from "open" to "limited" in some areas would eliminate the potential development of new roads and trails but allow maintenance activities and access to continue.

Conclusion

The overall impact of Alternative C on the areas is projected to be beneficial. Special management actions that control adverse change agents would be implemented.

Meeting The Objectives

Objective ACEC 1: Designate Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and apply special management to protect the values identified.

This objective would be met on 17 of 20 areas in Alternative C. The 17 areas meeting the relevance and importance criteria would be designated and special management actions to protect the identified resource values would be implemented.

Social and Economic Conditions

Change Agents

Population and recreation growth, livestock grazing levels and social structure.

Population Impacts

Greater Idaho's population is projected to increase throughout the next 20 years. Population growth has been a dynamic force in the current economic growth in southwestern Idaho. Between 1990 and 1993, regional population has grown by 37,700 or 11.3% within the four-county region of Ada, Canyon and Owyhee Counties in Idaho and Malheur County in Oregon (Bureau of Economic Analysis, Regional Economic Information System). However, population growth has taken on new dimensions, including quality of life considerations, here in this latter part of the 20th century. Recent migration has been toward smaller urban or rural areas and away from the large overcrowded metropolitan areas. Quality of life factors such as lower taxes, less inflation, lower crime rates, economic boom and leisure and recreational opportunities are sighted as reasons for this migration trend. This has resulted in increased pressure on the public land to provide a socially acceptable mix of land uses; away from consumptive use toward more nonconsumptive or preservation and retention in the public domain. The Owyhee Resource Area will continue to see increased pressure as regional population growth from nearby Ada and Canyon Counties drives demand for alternative, and often conflicting, uses of these public land resources. Thus, the present dynamic that is causing the change in the rural/urban interface will continue to put pressure on the historical use of the public land resources and BLMs management of those resources in the future.

The following impact analysis is based on the modeling of ranch budgets for typical ranch operations within Owyhee County and computer modeling using input/output analysis of the regional economy for Owyhee, County, Idaho as discussed in Chapter 3 and in the appendix. (See Appendix SOCE-2 for a short summary of the modeling technique used in this impact analysis.)

Ranch Level Impacts

Decreases in the number of Animal Unit Months (AUMs) permitted for livestock grazing (96,676 AUMs to 87,121 AUMs, or 9,555 AUMs) will have negative economic impacts on the ranch community in general and some individual ranches in particular. Average income above operating costs under this alternative would decline for each ranch operation (see below).

Ranch Operating Impacts

	Per Ranch Average	Total
Jordan Valley	$ -2,200	$-79,600
Marsing	$ -8,100	$-64,900
Bruneau	$ 9,400	$ 18,800
Total		$-125,700

County Economic Impacts

Direct and indirect output into the economy would decrease by $162,000 under this alternative. Regional income would decrease by $54,000 and total employment would decrease by 1.

County Level Impacts

Total Industry Impact	
Direct plus Indirect	$-161,900
Total Value Added	$ -60,500
Total Regional Income	$ -54,000
Total Economic	$-222,500
Total Employment	-1

Recreation Impacts

General recreation activity is projected to increase approximately 70% between 1998 and 2018. However, it is not suggested that the increased recreation activity would be in response to BLM actions, rather, the regional population growth would be the root cause of any additional recreational activity on the public lands in the planning area. Very little of this activity will translate into increased economic activity within the county since most goods and services associated with recreation activities within Owyhee County are purchased outside the county. In fact there may be added costs to Owyhee County's budget for increased search and rescue and law enforcement activities.

Social Impacts

Economic pressures on the ranching and rural communities within Owyhee County will continue to grow as external forces (i.e., regional population growth; regional economic growth; and financial institutional changes) continues to mount. This alternative will exasperate the situation by creating further feelings of despair and alienation within in ranch community and spill over into many of the local communities within Owyhee County as described in Chapter 3 social conditions.

Conclusion

Negative impacts are projected for the local/regional economy by decreasing regional output of goods and services and employment. The impact, though having a detrimental affect on individual ranch operations, is not projected to be significant enough to cause significant financial hardships for the local or regional infrastructure. Social services and other factors that currently contribute to the quality of life locally and regionally would not be slightly affected.

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Alternative D

Air Resources

Change Agents

Prescribed burning, mining activities, national river designations, WSA lands and Section 202 study lands, road construction, plow and seed operations and aerial pesticide/herbicide application.

Impact Analysis

A total of 64,400 acres are identified for possible prescribed burning over the next 20 years. Up to 9,000 acres per year would be treated. Individual burns would be limited to 3,000 acres with a 72 hour interval before any new burn actions. Only limited controlled burning would be allowed in areas where the emissions would impact the Class 1 air quality criteria designation for WSA lands and Section 202 lands. During burning operations a one to two day localized decrease in air quality would occur. By limiting the size of the burn, allowing a time interval of 72 hours between burns, conducting burns when climatic factors are optimal for good dispersion, and coordinating with other air quality influencing actions in the area at the time of the burns (to reduce potential cumulative impacts), impacts from this action would not be substantial.

Mining operations have several sources of air pollutants. Sources of particulate (i.e., dust) emissions in mining operations include drilling, blasting, and ore collection in the mine pit, plus wind erosion from ore pits, ore loading into trucks, trucks moving over haul roads, and trucks dumping ore into piles, ore loading onto conveyors and ore crushing into small processing sizes, crushed ore screening and crushed ore smoothing, waste rock smoothing in waste piles and wind erosion from waste piles.
The active DeLamar Mine is currently the major source of these types of emissions in the resource area. Air quality impacts due to the Stone Cabin Mine are addressed in the Stone Cabin Mine EIS and will not be addressed in this document. Cumulative impacts of the DeLamar and Stone Cabin mining operations would have an insubstantial impact on local air quality in the area. Impacts projected from small scale mining operations would not be substantial due to the limited size and nature of these operations, although if in the same vicinity of the DeLamar and Stone Cabin sites they would add to the cumulative impact.

The following would be withdrawn from mineral entry, fluid mineral development and mineral material disposal: all SRMAs, ACECs, the SRBOPNCA (by Public Law 103-64), and Section 202 study lands; all WSAs and future designated wilderness lands; all eligible and future designated Wild, Scenic, or Recreational Rivers and their corridors; all designated national rivers; all known important paleontological and cultural resource sites; and all areas where special status species might be adversely impacted. This would preclude any impacts on air quality associated with mining or mineral exploration.

Impacts from road construction, plow and seed operations, and aerial application of pesticides/herbicides would result in minor short-term impacts on air quality dependent on size of the operations and adherence to best management practices during the operations.

Conclusion

The overall impact of Alternative D on air quality would be beneficial.

Meeting the Objectives

Objective AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

This objective would be met in Alternative D.

Soil Resources

Change Agents

Livestock grazing, OHMV activities, fluid mineral and locatable mineral activities, special designations, rights-of-way and vegetation treatments.

Impact Analysis

In Alternative D, it is estimated that broad based erosion rates could decrease slightly on the rhyolite/basalt plateaus and Owyhee (mountain) uplands. The low elevation areas draining into the Snake River could exhibit a more pronounced decrease in broad based erosion rates. These broad based decreases in soil erosion would be primarily due to the increase in vegetative density and composition (which would result in increased canopy and litter cover and reestablishment of microbiotic soil crusts) projected over the next 20 years as a result of the grazing management and reductions in AUMs proposed. Erosion as a result of soil surface disturbing activities (i.e., livestock hoof action, OHMV, mining related actions and construction) would also be greatly reduced in Alternative D and be reflected in the broad based soil erosional decrease.

Prescribed grazing practices, restrictions, and projected livestock reductions (62% reduction in AUMs) that would be implemented in Alternative D would result in improved overall watershed condition (particularly low elevation uplands and all riparian areas) and enhanced streambank stability. A decrease in the following impacts could occur: soil compaction, soil disturbance, streambank disturbance, cryptogamic crust disturbance, and vegetative degradation.

Impacts on the soil resource in the form of soil erosion, loss of productivity, and soil compaction from off-highway motorized vehicle (OHMV) activities would decrease in Alternative D. This would be due to changing much of the area from an "Open" designation to a Limited - Level 4 or Limited - Level 5 designation which would eliminate all cross-country OHMV activity within the area with the exception of special, permitted events which may be approved on a site-specific basis. This could be especially beneficial in the Owyhee mountains, South Mountain and Juniper Mountain area where OHMV activity is rapidly increasing. In the Owyhee Front area the closure of the Hemingway Butte area and the November to April closure of the remaining areas would have a beneficial affect on the soil resource. General impacts would decrease as use levels decrease. Where OHMV use is allowed it could cause mechanical disturbance to the soil surface and destruction of the protective vegetative cover (this includes vascular plants and soil stabilizing microbiotic soil crusts). Mechanical disturbance from OHMV activities could result in destruction of soil aggregates, formation of channels, and a sloughing of washes. More heavily utilized trails would widen and become more deeply moguled and rutted as use levels increase.

Fluid mineral and locatable mineral activities would have far less impact on the soil resource in Alternative D compared to the other alternatives. The following would be withdrawn from mineral entry, fluid mineral development and mineral material disposal: all SRMAs, ACECs, the SRBOPNCA (by Public Law 103-64), and Section 202 study lands; all WSAs and future designated wilderness lands; all eligible and future designated Wild, Scenic, or Recreational Rivers and their corridors; all designated national rivers; all known important paleontological and cultural resource sites; and all areas where special status species might be adversely impacted. This would total at least 807,735 acres. Other limiting measures are associated with wildlife, special status species, and riparian areas. This would preclude any impacts on the soil resource associated with these activities (as described in Alternative A) in and around these areas.

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Right-of-ways could cause varying degrees of disturbance in the resource area. No significant impact on soils is projected from construction of pipelines, powerlines and telephone lines after construction is finished. Roads, especially unsurfaced roads, would cause both short and long-term erosion problems.

Vegetation treatments are projected on an estimated 81,400 acres (prescribed burning, 64,400 acres; and woodland harvest, 17,000 acres) according to established standards and the Owyhee Juniper Woodland Management Plan in Alternative D. Prescribed fire would be the major treatment method used. The other treatment method would be chemical treatment. Mechanical treatments would not be done. The projected acreage for chemical treatment is about 6,440 acres over the next 20 years. Sagebrush treatment would occur on 34,100 acres. Seedings would not occur. Vegetation treatments would cause varying degrees of disturbance in the resource area. This would depend on the type and size of the treatment (and, over the long term, the success). By following established BMPs, impacts from these treatments could be reduced. Soil erosion (by wind and/or water) and subsequent sediment delivery and loss of productivity would be a short-term impact. Ash from prescribed fire treatments may act as sediment (moved by either wind and/or water) and affect water quality. After revegetation occurs a long-term improvement in watershed condition would result.

Conclusion

The overall impact of Alternative D on the soil resource would be beneficial. Broad based erosion levels could decrease. Streambanks would show an upward recovery trend. OHMV and mineral extraction activities would be managed to better protect the soil resource.

Meeting the Objectives

Objective SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

It is estimated that this objective would be met, or making significant progress toward meeting it, on over 80% of the resource area in Alternative D. This estimate is based on the projection that the actions implemented under this alternative would provide adequate amounts of ground/canopy cover (determined on an ecological site basis) to support proper infiltration, maintain soil moisture storage, soil productivity, and stabilize soils. Also projected is the decrease in soil compaction and surface disturbing activities which will support soil permeability rates.

Objective SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

It is estimated that this objective would be met, or making significant progress toward meeting it, for over 80 % of the situations (streambanks being a major source) once effective management systems/protection have been implemented under this plan. Many of the existing roads and trails (particularly those that are on soils with high erosion hazard ratings) would continue to be a source of localized soil erosion. By limiting OHMV and mineral activity localized accelerated soil erosion from these sources would be greatly reduced. The requirement/implementation of BMPs at the individual project planning level will prevent future problems.

Water Resources

Change Agents

Livestock grazing, mining activities, OHMV use and prescribed burning.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in all riparian pastures without an approved and implemented grazing system, and implementation of intensive grazing systems would result in short-term and long-term improvement in riparian condition as described in Alternative A. Over 20 years, as riparian condition improves, 90% of all BLM stream miles throughout the resource would achieve satisfactory and proper functioning conditions. Water quality would improve to meet water quality standards on these streams in Alternative D.

Point and nonpoint source mining impacts on water quality would the same as described in Alternative A. Impacts from historic mining activities would not change from the current level.

OHMV impacts on water quality would decrease in Alternative D as none of the area would be classified as "open" or having limitations on OHMV use. Impacts consisting of upland erosion and sedimentation of stream channels, as described in Alternative A, would occur primarily along the Owyhee Front, but would expand to the southern portion of the resource area over 20 years.

Fewer impacts resulting in increased precipitation runoff and reduced infiltration, as described in Alternative A, would occur as the number of prescribed burns proposed decrease significantly from Alternative A. Prescribed burns would be limited to a maximum of 9,000 acres annually with about 64,400 acres burned over the next 20 years.

Water rights would be obtained on all water development projects. Minimum streamflow applications would be filed on appropriate high value streams.

Conclusion

Riparian condition and water quality would improve on an estimated 75% of all BLM stream miles as grazing systems are implemented. Implementation of grazing systems combined with other management actions would result in satisfactory conditions on 90% of all BLM stream miles. Elimination of excessive hot-season livestock grazing would allow riparian vegetation condition and structure to improve . These changes would result in more stream shading that would help to maintain cooler water temperatures. State water quality standards would be met on these stream miles over a 20-year period.

Meeting the Objectives

Objective WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

This objective would be met on 90% of all BLM stream miles in Alternative D.

Objective WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

In Alternative D, water uses on all streams would be provided for through compliance with State water law and in accordance with State licensing processes.

Vegetation

Change Agents

Livestock grazing, vegetation treatments, weed control, livestock water developments, fencing, wild horse management, OHMV activities, and mining activities, .

Impact Analysis

The primary beneficial impact for the vegetation resource would be as a result of implementation of management actions which result in adjustments in livestock grazing practices. These adjustments include: 1) Elimination of livestock grazing by July 15, or earlier if necessary, in all pastures with riparian or wetland areas regardless of size or monitoring status. 2) Elimination of livestock grazing on all allotments where 75% or more of the allotment is in an early seral stage. 3) Elimination of all domestic sheep grazing from public lands. 4) Including periods of rest during times of critical plant growth and regrowth in livestock grazing. 5) Allowing a maximum of 30% annual forage utilization of key forage species.

Suspending livestock use by July 15 would provide for regrowth of riparian vegetation which would allow these areas to maintain or improve their current status. A shortened grazing season would also benefit upland vegetation by allowing for more rest or options for other grazing systems. However, grazing prior to July 15 has the potential to adversely impact upland native vegetation as livestock use would occur during the plant's active growth and food storage phase. Although most plants are sensitive to grazing during this time period, studies have shown that bluebunch wheatgrass is extremely sensitive to grazing during active growth (Anderson, 1991). This early use has the potential to prevent substantial improvement on those sites where bluebunch wheatgrass is the dominant grass species. These sites cover over 50% of the resource area. Grazing systems would be designed to mitigate these impacts through scheduled resting of pastures.

Livestock grazing would be eliminated immediately on those allotments where 75% or more is in an early seral stage. Based on Table VEGE-2, this would total 217,727 acres that would be closed to livestock grazing with 21,518 AUMs unavailable for livestock use. Beneficial impacts are projected on upland vegetation in terms of improved plant vigor, increased frequency and cover of key perennial species, and upward vegetative trend for areas on which livestock grazing is eliminated. However, ecological conditions on those sites currently in an early seral stage, are projected to change only minimally within 20 years.

Elimination of domestic sheep grazing and the conversion of these AUMs from sheep to cattle would have little impact on vegetation within the resource area. Because cattle do not use the steeper slopes as effectively as herded sheep, key use areas preferred by cattle would receive more concentrated use. Riparian and wetland areas would also be adversely impacted as cattle tend to concentrate more in these areas than herded sheep. However these impacts would be mitigated through upland and riparian monitoring as livestock use would be reduced or eliminated in those areas where management objectives are not being met.

Beneficial impacts on vegetation are projected from including periods of rest. Providing rest during times of critical growth and regrowth will allow plants to complete their food storage phase, replenish root reserves and produce seed. This would result in improved plant vigor and an upward vegetative trend. Limiting utilization to 30% as compared to the current 50% limit would have beneficial impacts by removing less vegetation during the active growth and food storage periods (spring to early summer). After plants have reached seed ripe and completed their growth and food storage phases, defoliation is not as critical. After seed ripe benefits from a 30% utilization limit would be negligible. A total of 1,080,151 acres would be grazed at a maximum of 30% utilization.

When any species or class of vegetation is allowed to dominate a large area, ecological diversity, forage production, and plant vigor will be adversely impacted. At the same time if one species or class of vegetation is eliminated or substantially reduced over a large area similar impacts could be projected. Prescribed burning and juniper woodcuts are tools for treating vegetation to maintain the preferred mix of communities within a given area. In Alternative D a total of 47,300 acres of juniper and 34,100 acres of sagebrush have been identified for treatment.

Short-term impacts (2-3 years) from prescribed burns (64,400 acres) and juniper woodcuts (17,000 acres) would be adverse as vegetative structural diversity is decreased by reducing or eliminating the predominant species (sagebrush or juniper) at each site. Long-term impacts would be beneficial by improving ecological diversity, ecological site condition, forage production, and plant vigor of these selected areas as understory vegetation communities become restored.

Beneficial impacts are projected for forest land biodiversity by retaining 32,600 acres of remnant Douglas-fir forests within the resource area.

Noxious weed control would have a slight beneficial effect on vegetative diversity by maintaining the integrity of native plant communities by reducing or eliminating undesirable species. Beneficial impacts, through noxious weed control, are also projected in those areas where OHV use occurs. OHV activity has the potential to remove vegetation which then allows noxious weeds to become established at those sites.

In Alternative D about 190 miles of existing trails and sand washes would be closed to OHMV activity. By closing these 190 miles, beneficial impacts are projected as native vegetation would be allowed to reestablish within these closed areas. Of this figure 50 miles are located within the Hemingway Butte area, which annually receives considerable OHMV use. By closing this area to OHMV activity and by closing the Hemingway Butte Recreation OHMV trailhead, beneficial impacts on vegetation are projected for this specific area.

Alternative D would also change 420,493 acres of "Open" designation to a "Limited" designation which would eliminate all cross-country OHMV activity. This would be a beneficial impact through reduced physical damage to the vegetation and reduced soil erosion.

About 70 miles of existing roads would also be closed in Alternative D. These roads would be rehabilitated with native plants in order to restore native plant communities in these disturbed areas. The level of use and associated impacts could increase at a more rapid rate in these "Limited" use areas as restrictions on OHMV use are implemented in other parts of the resource area. Staging areas for organized events have the potential to adversely impact vegetation through concentrated use within these areas. The overall impact of OHMV activities in Alternative D is projected to be beneficial, as compared to the existing situation, but only if use in the "Closed" and "Limited" areas is controlled through enforcement.

Mineral activities have the potential for adverse impacts on vegetation on a site specific basis. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations. Refer to the Stone Cabin Mine EIS for a detailed analysis of mining impacts.

Conclusion

Overall it is projected that Alternative D would have beneficial impacts to vegetation due to reductions in livestock grazing from an initial stocking level of 135,116 AUMs to 52,685 AUMs at the end of twenty years,, scheduled periods of rest, reduced utilization levels, identified juniper treatments and the Limited OHMV designation. Beneficial impacts on vegetation are projected in Alternative D in terms of improved plant vigor, increased frequency and cover of key perennial species, and upward vegetative trend. These beneficial impacts should result in some changes in ecological conditions within 20 years.

Factors such as climate, soils, competition from other species, available sources of seed on site, livestock season-of-use, and livestock stocking levels will determine the amount of time needed to move from one seral stage to the next. Even with complete livestock removal succession can be extremely slow, sometimes requiring 20-40 years (Sanders and Voth 1983 and Tisdale, Hironaka, and Fosberg 1969).

Meeting the Objectives

Objective VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

This objective would be met in Alternative D with the combination of a minimal level of vegetation treatment and changes in livestock management. The table below outlines the projected changes in ecological status for this alternative. These projected changes were based on prescribed burns and juniper woodcuts along with reduced stocking levels and adjustments in season-of-use.

	Baseline		20-Year Projection	
Seral Stage	Acres	Percent	Acres	Percent
Early seral	565,830	43%	486,558	37%
Mid seral	55,130	43%	485,318	37%
Late seral	37,797	11%	263,926	20%
PNC	2,203	<1%	25,158	2%
Treated	7,814	3%	37,814	3%
Total	1,298,774	100%	1,298,774	100%

Objective FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

Alternative D would meet the objective of retaining forest land biodiversity and recognizes the value of dead material for the overall ecological health of forest environments.

Objective FORS 2: Use juniper harvesting to help achieve a desired plant community.

Alternative D would meet the objective of achieving desired plant communities in the resource area by controlling juniper by harvest methods on 17,000 acres, by prescribed burning 30,300 acres of juniper dominated sites and by burning an additional 34,100 acres of mostly sagebrush dominated sites being encroached upon by juniper, within 20 years.

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Riparian-Wetland Areas

Change Agents

Livestock grazing, mining activities and OHMV use.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in all riparian pastures without an approved and implemented grazing system, and implementation of intensive grazing systems would result in both short-term and long-term improvement in riparian condition as described in Alternative A. Over 20 years, 90% of all BLM riparian miles throughout the resource would achieve satisfactory or proper functioning condition in Alternative D.

Nonpoint source mining impacts on riparian areas would not increase in Alternative D. Nonpoint source impacts from historic mining operations, as described in Alternative A, would continue at the current level.

OHMV impacts on riparian areas would decrease in Alternative D as none of the area would be classified as "open" or having few limitations on OHMV use. OHMV activities would result in both upland and riparian area erosion, as described in Alternative A, as vegetative cover and streambank stability are decreased. Adverse impacts would occur primarily along the Owyhee Front, but would expand to the southern portion of the resource area over 20 years.

Land tenure adjustments to consolidate public lands would generally benefit riparian values. Newly acquired lands with riparian/aquatic values would be managed with special land use restrictions which benefit these values.

Conclusion

Implementation of grazing systems that eliminate excessive hot-season grazing would result in improved riparian habitat condition by allowing riparian vegetation to establish and improve in composition, vigor, density and structure. The resulting riparian zone would be more efficient in its buffering and filtering functions. Implementation of grazing systems combined with other management actions would result in satisfactory conditions on an estimated 90% of all BLM riparian miles.

Meeting the Objectives

Objective RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps and wetlands.

This objective would be met on 90% of all BLM riparian miles in Alternative D.

Wildlife Habitat

Change Agents

Livestock grazing, livestock management facilities, vegetation treatments, mining activities, OHMV activities, other recreation use, national river designations, ACEC designations, VRM designations, wildlife projects, land tenure adjustments and land use authorizations.

Impact Analysis

Alternative D would result in substantial reductions in livestock grazing levels and a shift to early season grazing throughout most of the resource area. A 61% reduction in active grazing preference to 52,685 AUMs would result from the combined effects of eliminating livestock grazing from some ACECs, all areas in PNC, all allotments where 75% or more is in early seral stage, all pastures containing riparian areas displaying moderate to severe bank stabilization problems and elimination of grazing after July 15 in all pastures with any riparian habitat. This reduction in livestock grazing levels and elimination of nearly all mid and late season grazing would result in a rapid improvement of riparian habitats and more gradual improvement in upland habitats. Benefits to wildlife would include increased quality and quantity of forage, cover and water within most riparian and upland habitats, especially during the typically stressful late summer season. Livestock utilization of bitterbrush and other browse species would decrease significantly since most livestock use of browse typically occurs during mid-to-late summer after herbaceous species have cured and become less palatable. In areas of past heavy browse use by livestock, lighter use would result in increased browse vigor and forage availability for big game species, in the short term. In the long term, shrub species are generally projected to decrease as ecological condition advances and as fire frequency and acreage increases due to the increasing volume of ungrazed fine fuels. The transition to a later seral stage could result in a gradual decline in deer, sage grouse and a diversity of other wildlife species which are closely tied to shrub-dominated habitats, although, this could be partially or entirely offset by increases in plant species diversity and forage availability. It is also projected to result in an increase in the number of pronghorn, bighorn sheep and other species which are better adapted to more open habitats with a lesser shrub component. This is a broad generalization however, and any major shifts in wildlife habitats or populations would depend upon a variety of factors including, climatic factors, fire frequency and the level of fire suppression.

Some adverse impacts would continue to result from the shift to early season grazing, where permitted. These would include competition for early season forage; disturbance and reduced cover within deer, elk and pronghorn fawning habitats and waterfowl, sage grouse and nongame bird nesting and brood-rearing habitats and continued early season disturbance of some riparian/aquatic habitats.

A combination of prescribed burning and woodcutting would be employed to eliminate an estimated 35,200 acres of juniper woodland habitat (15,200 acres less than Alternative A) and 20,500 acres of sagebrush habitat (19,100 acres less than Alternative A). See Chapter IV - Introduction - Changes in Ecological Status for assumptions used. The types of impacts from juniper and shrub treatments would be similar to those projected for Alternative A except that treatment areas would recover more quickly because of the extended three full years of rest following treatment prior to resuming livestock grazing and substantially reduced livestock use levels. The overall, long-term impacts of vegetation treatments are projected to be mostly beneficial, although, short-term and even long-term impacts on some species would be adverse. See Alternative A for detailed analysis.

In Alternative D a total of more than 807,000 acres of public land would be withdrawn from mineral entry and closed to mineral materials sales and fluid minerals leasing. This is nearly 600,000 acres or 300% more than was prescribed for protection in Alternative A and could potentially result in substantially less disturbance to wildlife habitat although most areas with known high to moderate mineral potential would continue to be open for mineral extraction. The types of disturbance and associated adverse impacts on wildlife within these open areas would be about the same as identified in Alternative A.

In Alternative D about 190 miles of motorcycle trails and sand washes and 70 miles of roads would be closed. All road closures would occur in the south half of the resource area within the Owyhee Canyonlands SRMA and should result in some benefits to big game and other species primarily by restricting vehicle access during the hunting season. Fifty miles of the trail/sand wash closures would occur within a 4,000 acre area near the Hemingway Butte trail head with the remaining 140 miles of closure occurring elsewhere within the Owyhee Front SRMA including all trails and sand washes east of Highway 78. The designations within the Owyhee Front SRMA would reduce disturbance to wintering and yearlong pronghorn, wintering deer, breeding and nesting sage grouse and a large diversity of other game and nongame species. The most dramatic habitat improvement, primarily for nongame species, should take place within and adjacent to the heavily impacted Hemingway Butte trailhead area. As trails and sand washes are closed in this and other parts of the Owyhee Front SRMA, beneficial changes should include reestablishment of vegetation within closed trails resulting in improved forage and cover for a diversity of species, and elimination of OHMV disturbance of wildlife in the vicinity of closed trails and sand washes. Alternative D would also result in changing 420,434 acres of "Open" designation primarily to a Limited - Level 2 designation in much of the north half and a Level 5 designation in the south half of the resource area which would eliminate all cross-country OHMV activity. This would result in reduced physical damage to wildlife habitat throughout the resource area and, more significantly, reduced wildlife disturbance by OHMVs, especially during hunting seasons.

The overall impacts of the prescribed OHMV actions in Alternative D are projected to be beneficial when compared to the current situation, however it is projected that adverse impacts on most wildlife habitats and populations would continue to increase as a result of increasing use levels and an inadequate number of personnel to enforce OHMV regulations, especially within the Owyhee Front SRMA.

Other recreation program management actions in Alternative D include construction of the Guffey Butte and Jump Creek nonmotorized trails, establishment of two equestrian trailheads, upgrading or reconstructing facilities at seven recreational facilities and construction of seven additional recreation sites. Human activity on the Guffey Butte trail, designed to redirect current and projected increased use around Guffey Butte at a lower elevation, could result in disturbance to a diversity of raptor species nesting on the butte including golden eagles, prairie falcons and ferruginous hawks. Initial development of Celebration Park has already resulted in a noticeable increase in hiking activity on Guffey Butte during the nesting season and with development of this trail, the level of use would increase dramatically. This could lead to nest failures or total abandonment of this area by some or all nesting raptors including ferruginous hawks.

Construction of the Jump Creek trail would also increase recreation use of Jump Creek Canyon resulting in increased disturbance to cliff-nesting raptors and a large diversity of other species associated with canyon/riparian habitats. Currently, much of the upper canyon is nearly inaccessible and relatively undisturbed. Both short-term and long-term impacts of these trails is projected to be adverse.

Establishment of two equestrian trailheads would result in increased levels of horseback riding and camping use within the Owyhee Mountains. This would result in deterioration of habitat along the trails and camp sites and some disturbance to wildlife within the immediate vicinity of trail and camps. Overall short-term and long-term impacts from trailhead establishment are projected to be slightly adverse.

Upgrading of existing and construction of additional recreational facilities would result in additional human disturbance of wildlife populations and habitats in the vicinity of these facilities. This could result in fewer numbers of those species that are especially sensitive to human activities while having no effect or even a beneficial impact on others. Overall impacts on most species is projected to be adverse but should be restricted to a relatively small area within close proximity to the facilities.

In Alternative D a total of 223 miles of eligible rivers and streams would be recommended as suitable for wild, scenic or recreational river designation. This is 129 more miles than recommended in Alternative A and would result in these additional river/stream miles protected from impacting activities. Designated rivers and streams would be closed to all OHMV activity with the exception of designated crossings result in long-term protection of aquatic, riparian and canyon habitats and dependant wildlife species. They would be withdrawn from mineral entry and closed to mineral materials sales and fluid minerals leasing. It would preclude any impacts to wildlife or wildlife habitat associated with these activities. Both short-term and long-term impacts are projected to be beneficial.

ACEC designations and associated special management on 265,016 acres (112,558 acres more than Alternative A) would have a mostly beneficial impact on wildlife. Elimination of livestock grazing and livestock management facilities within identified ACECs should result in increased forage availability and improved habitat conditions for most species within these ACECs, although, resultant long-term changes in vegetation would result in shifts in wildlife populations as previously described. Withdrawal of all ACECs from mineral entry and closure to materials sales and fluid minerals leasing, closure to most OHMV activity and exclusion or avoidance to rights-of-ways would prevent loss and disturbance of habitat and populations from these activities. Conversely, restrictions on juniper woodcutting and burning could result in a loss of forage and habitat for many species unless the occurrence of naturally occurring fires increases substantially. If juniper density and cover continues to increase within these ACECs understory vegetation and associated wildlife species diversity and carrying capacity for most species would also decline. See Table ACEC-D for specific constraints.

The large increase in designated VRM Class 1 acreage in the south half of the resource area would also result in strict limitations in prescribed burning and elimination of juniper woodcuts within these Class 1 Areas. As with similar ACEC restrictions this would result in mostly adverse impacts on wildlife unless the occurrence of naturally occurring fires increased substantially. Beneficial impacts of increased Class 1 designation would be the elimination of all surface disturbing activities which would normally result in disturbance or loss of wildlife habitat and populations.

Impacts of wildlife water developments, nesting structures and islands would be the same as for Alternative A. The lack of habitat exclosures identified in Alternative D would result in less disturbance and fewer impediments to wildlife movement. It may also result in slower improvement and less overall improvement of 137 miles of mostly riparian habitats that would have received total exclusion from grazing in Alternative A but this should be largely offset by the large reductions in livestock use levels and seasons of use and improved livestock management. Short-term and long-term impacts of these actions would be beneficial.

Impacts of land tenure adjustments would be essentially the same as those projected for Alternative A.

Adverse impacts of land use authorizations could be substantially less than those projected for Alternative A. The exclusion of new rights-of-ways within ACECs, SRMAs, crucial wildlife habitats and wild horse areas would protect these areas from the types of disturbance associated with these actions. Rights-of-ways, leases and permits would continue to have a net adverse impact on wildlife in unrestricted areas as habitat is dedicated to other uses.

Conclusion

The overall impact of Alternative D is projected to be beneficial for most species primarily based upon the substantial reduction in and restrictions place on livestock grazing and construction of livestock management facilities. Riparian/wetland habitats would experience the most significant and rapid improvement which would benefit a large diversity of wildlife species via increased quantity and quality of food, cover and water. Other management actions that would benefit wildlife include the substantial reduction in acreage open to mining, materials sales and fluid minerals leasing; more restrictive OHMV management throughout most of the resource area, national river, ACEC and Class 1 visual designations which result in restrictions on surface disturbing activities and development of wildlife habitat projects. Adverse impacts associated with Alternative D would include additional recreation facility development and expansion resulting in increased human disturbance to wildlife populations and habitats; and the severe restrictions placed on juniper woodcutting and burning by various designations which could result in deteriorating habitat for some species. In the long term, uplands, with the exception of woodland habitats, would slowly shift to a later ecological stage resulting in a concurrent shift in wildlife species composition reflective of a more open landscape with less tree and shrub cover and more grasslands.

Meeting the Objectives

Objective WDLF 1: Maintain or enhance the condition, abundance and distribution of plant communities and special habitat features required to support the large diversity and desired numbers of wildlife inhabiting public lands within the Owyhee Resource Area.

This objective would be met. Major contributing change agents would include significant reductions in AUMs, length of the grazing season, areas open to grazing (including several hundred miles of riparian habitat), mining, OHMV and other surface disturbing activities and creation of additional roadless area through road closure within SRMAs. Other benefits would be derived from development of additional wildlife waters and cooperative farming agreements, and some land tenure adjustments. Generally, as most ecological sites within the resource area advance toward a later seral stage the upland shrub component would decline and there would be a concurrent shift in wildlife species distribution and abundance favoring those species better adapted to a more open landscape with a lower percentage of woody species. The exception would be where juniper are protected and understory vegetation (fine fuel) is reduced to the point that natural fires would not occur. Dramatically reduced livestock AUMs and suspension of livestock grazing after July 15 could, to a large degree, compensate for reduced upland shrub density and cover by improving riparian shrub component, improving upland herbaceous vegetation and reducing livestock use of shrubs.

Fishery Habitat

Change Agents

Livestock grazing, mining activities, OHMV use and prescribed burning.

Impact Analysis

Implementation of the July 15 end-of-grazing-season constraint in all riparian pastures without an approved and implemented grazing system, and implementation of intensive grazing systems would result in both short-term and long-term improvement in riparian condition. Over 20 years, as riparian condition improves, 90% of all BLM stream miles would achieve satisfactory fish habitat condition. Improved riparian vegetation condition and streambank stability, as described in Alternative A, would result in long-term improvement in fish habitat condition and aquatic species biodiversity.

Point and nonpoint source mining impacts on aquatic ecosystems would not increase in Alternative D. The major impacts would be sedimentation and acid rock drainage from historic mining operations as described in Alternative A.

OHMV impacts on fish communities and aquatic biodiversity would decrease in Alternative D as none of the area would be classified as "open" or having few limitations on OHMV use. About 26% of the resource area would be closed to OHMV use. OHMV activities would result in a loss of ground cover which would lead to increased upland erosion and fine sediment deposition in streams as described in Alternative A. Impacts would occur primarily along the Owyhee Front, but would expand to the southern portion of the resource area over 20 years.

Impacts on fisheries habitat from prescribed burns would decrease in Alternative D. Prescribed burns would be limited to a maximum of 9,000 acres annually with about 64,400 acres burned over the next 20 years. The primary impact on aquatic communities would be increased sediment as described in Alternative A.

Land tenure adjustments to consolidate public lands would generally benefit aquatic resource values. Newly acquired lands with aquatic values would be managed with special land use restrictions which benefit these values.

Conclusion

The effects of Alternative D on native fish communities and aquatic biodiversity would be beneficial. The condition of aquatic species habitat would improve over the short term and long term. Implementation of grazing systems would result in improvement in habitat conditions on about 90% of all BLM stream miles over 20 years.

Meeting the Objectives

Objective FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

This objective would be met on 90% of all BLM stream miles in Alternative D.

Objective FISH 2: Improve reservoir fisheries when appropriate, in consultation with State agencies and adjacent landowners.

This objective would be fully met on the majority of reservoirs in Alternative D.

Special Status Species

Special Status Plants

Change Agents

OHMV activities, livestock grazing, mining activities, vegetation treatments, livestock water developments, fencing, recreation use, land use authorizations, land tenure adjustments, ACEC designations and national river designations.

Impact Analysis

About 190 miles of trails and sand washes and 70 miles of roads would be closed to OHMV use in Alternative D, compared with no closures in Alternative A. The trail/wash closures could have a substantial beneficial impact on numerous special status plant species. Beneficial impacts would be in the form of protection from future direct OHMV caused plant damage and from habitat disturbance. In addition, recovery of previously disturbed habitats would potentially ensue following the closures. Species that would be beneficially impacted include Mulford's milkvetch, Cusick's false yarrow, annual brittlebrush, white eatonella, rigid threadbush, Janish's penstemon, white-margined wax plant, and Snake River milkvetch.

OHMV "Closure" on 339,061 acres and changing 420,434 acres of "Open" designation to Limited - Level 2 and some Level 5 and Level 7 designations in the north half of the resource area and a Level 5 designation in the south half, would eliminate all cross-country OHMV activity. This would result in reduced physical damage to special status plant habitats throughout the resource area. While the overall impacts of the prescribed OHMV actions in Alternative D are projected to be beneficial, it would depend on adequate enforcement of OHMV regulations.

Dramatic reductions in livestock grazing levels and conversion to early season grazing prescribed in Alternative D is projected to have an overall beneficial impact on special status plants. As upland and riparian plant communities advance their ecological condition under the lowered stocking rates, populations of associated special status plants are projected to stabilize and some could potentially increase. Benefits to special status plants would result from reduced levels of herbivory and trampling, the lowered threat of exotic plant species competition and introductions, and improved resource availability (e.g., water, nutrients). While the effects of livestock grazing on most special status plants is poorly known, because these species did not evolve with livestock, it can be assumed that less grazing use and a trend towards the potential natural community would benefit these species overall.

The impact of mining activities on special status plants would be substantially less than in Alternative A because of the increased acreage prescribed for withdrawal and closed to material sales and fluid minerals leasing. Species that would benefit include dimeresia, smooth stickleaf, Malheur yellow phacelia, Cusick's false yarrow, barren milkvetch, Simpson's hedgehog cactus, and white eatonella. However, the Snake River geographic reference area, an area of moderate to high mineral potential and high numbers of special status plant occurrences, would remain largely open for extraction, and impacts on plant populations and habitats would be similar to those in Alternative A. Impacts would primarily be in the form of loss of habitat and direct destruction of individuals and populations with the extent of impacts generally determined by the amount of activity. These impacts would be adverse.

In Alternative D, a total of 47,300 acres of juniper woodland would be treated, including 34,100 acres of burn (25,400 acres less than Alternative A) and 17,000 acres of woodcut (same as Alternative A). Potential adverse impacts on the four special status plants (Osgood Mountains milkvetch, dimeresia, least phacelia, Simpson's hedgehog cactus) that could occur in juniper habitat would be the same as described in Alternative A. Any short-term adverse impacts would be less severe and shorter in duration because of the extended 3 years rest prior to livestock grazing following treatment and dramatically reduced grazing levels. It is currently unknown what the impact of continuing juniper invasion would have on these species, but it is possible that the habitat would become unsuitable for them due to the increase in the juniper overstory.

Sagebrush treatments in Alternative D are identified on 34,100 acres, 31,800 acres less than in Alternative A and the same as in Alternative C. Impacts on special status plants would be similar to those projected in Alternative A, but on fewer acres. It is projected that Alternative D would result in less potential direct and indirect adverse impacts on special status plants and their habitat. While fire may have been necessary historically to maintain some species of special status plants and their habitats, it is difficult to project the impact of prescribed fire on these species today, given the pervasiveness of exotic plant species and the influence they have had on the natural fire regime. It is possible that reducing fire suppression efforts could have an adverse impact on some special status species, primarily due to weed invasion, while it may benefit others.

In Alternative D, 13 wildlife water developments are identified for construction. No pipelines, spring developments or reservoirs would be constructed. Alternative D would have an overall beneficial impact on special status plants, as the procedure of redistributing livestock into previously little used areas via new water developments would be discontinued. The risk of direct adverse impacts would be minimized due to the low number of projects identified. It is possible that in some cases special status plants would be adversely impacted by not redistributing livestock, if the lack of development serves to concentrate livestock in the vicinity of rare plant populations.

In Alternative D, no riparian exclosure or pasture fences would be constructed. Development of new trails along fences and concentrating of livestock in previously unused areas would not occur, but fences could still be constructed if a resource conflict is identified and fencing would alleviate the conflict. In Alternative D, the lack of fence construction (combined with dramatic reductions in livestock grazing levels and changes in seasons-of-use) would have an overall beneficial impact on special status plants.

Upgrading recreational facilities at seven sites and developing a minimum of four new recreational sites would result in increased use and associated human disturbance at these and adjacent areas. The potential for adverse impacts on special status plants in Alternative D would be slightly greater than in Alternative A, as a larger area would be affected. The potential for special status plants to be adversely impacted at trailheads and recreation sites is low because of the field exam procedure required prior to any development. However, long-term adverse impacts on adjacent unsurveyed areas are projected as increased use would cause deterioration of habitat and result in the spread of exotic plants into native habitat, including the habitat of special status plants.

The overall impact from land use authorizations on special status plants would be the same as for Alternative A. Prior to approval and issuance of any right-of-way, lease, or permit, site examinations for special status plants would be conducted. While adverse impacts could occur if examinations were done at an inappropriate time of year, generally there would be no direct impact. However, because land use authorizations could result in substantial surface disturbance, special status plants could be indirectly impacted by fragmentation of the overall habitat and the introduction of exotic species into disturbed areas.

Land tenure adjustments would have a slightly more beneficial impact on special status plants than those projected for Alternative A. Adjustments would generally be beneficial due to the Bureau's policy on disposal of special status species. Most adjustments result in acquisition of high quality habitat or other significant biological resources, including special status species. Many of these adjustments also result in the consolidation of public ownership in ACECs, WSAs, and national river corridors, where special status species management capabilities are more favorable.

Designation of 19 areas as ACECs (including RNAs and ONAs) would have a long-term, highly beneficial impact on special status plant species, with numerous plant populations given special management protection within the boundaries of those designated areas.

A total of 223 miles of eligible rivers and streams would be recommended as suitable for wild, scenic or recreational river designation in Alternative D. This is 129 more miles than in Alternative A. This would result in closure of these reaches to most adverse activities including OHMV activity and mineral extraction, which could benefit rattlesnake stickseed, Simpson's hedgehog cactus, dimeresia, American wood sage and inch-high lupine. Short- and long-term impacts would generally be beneficial, although localized adverse impacts could result due to the increase in recreational activity in the river corridor.

Conclusion

The overall impact of Alternative D is projected to be beneficial for most special status plant species. Management actions that would benefit special status plants include the designation or expansion of 19 areas as ACECs; the greater number of miles recommended for national river designations; the increased acreage prescribed for withdrawal and closed to material sales and fluid minerals leasing; significant reductions in livestock grazing; and the reduced acreages identified for vegetation treatment, which includes no sagebrush removal. Adverse impacts would continue as a result of the development of new and expansion of existing recreational facilities, and the Level 2 OHMV designation in the Snake River geographic reference area.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

As discussed in Alternative A, the limited availability of baseline inventory and monitoring data for many special status plants makes it difficult to accurately project impacts from the management actions prescribed in Alternative D. However, the prescribed management in Alternative D and its substantial restrictions on most land use activities would have a beneficial impact overall and would facilitate meeting the objective for most special status plants.

Special Status Animals

Change Agents

Livestock grazing, livestock management facilities, vegetation treatments, mining activities, OHMV activities, other recreation use, national river designations, ACEC designations, VRM designations, wildlife projects, land tenure adjustments, land use authorizations, species reintroductions and implementation of resource activity plans.

Impact Analysis

Alternative D would result in reductions in livestock grazing levels and a shift to early season grazing within most allotments and pastures. This is expected to result in rapid improvement of riparian special status species habitats with an estimated 90% (587 miles) being in satisfactory condition after only five years. This is 74% more than is expected to improve under Alternative A within the same time frame. The amount of riparian habitat in satisfactory condition is expected to remain at about 90% after twenty years which will still amount to a 58% improvement over Alternative A. Improvement is projected in most upland and riparian special status animal species habitats. It is estimated that an additional 77% (503 miles) of riparian habitat will improve from unsatisfactory to satisfactory condition within the life of this plan. Benefits should include increased quality and quantity of late season forage, cover and water within all riparian and upland habitats currently being adversely impacted by livestock grazing. In the long term, shrub species are generally projected to decrease as ecological condition advances and as fire frequency and acreage increases due to the increasing volume of ungrazed fine fuels. The transition to a later seral stage could result in a gradual decline in habitat for pygmy rabbit, sage grouse and a number of neotropical migrants as upland shrub species decline, but would enhance habitat for most other special status animal species. This is a broad generalization, however, and the extent of any major shifts in the shrub component would depend upon a variety of factors including weather patterns, fire frequency and the level of fire suppression.

Elimination of all domestic sheep grazing on public lands (within the resource area) could have a very substantial impact on California bighorn sheep populations both within the resource area and in adjoining Resource Areas, Districts and States. By minimizing the potential for contact between domestic sheep and bighorn sheep the chance of transmitting disease(s) which could lead to a major bighorn sheep dieoff is also minimized.

Some adverse impacts would continue to result from early season grazing but at a much reduced level and primarily in the form of short-term disturbance to riparian species and habitats. The loss of winter or early spring grazing within long-billed curlew habitat (because of the presence of riparian habitat and uplands with 75% or greater in early seral stage in these allotments) could reduce habitat suitability for this species and either reduce or eliminate its use as nesting habitat.

No livestock management facilities or habitat exclosures would be constructed in Alternative D. This would avoid any potential adverse and beneficial impacts on special status species that would be associated with these projects. Considering the drastic reduction in stocking rates, the lack of new management facilities is projected to be have a mostly beneficial impact.

The combination of woodcuts and prescribed burns would eliminated a total of 35,180 acres of juniper woodland (about 15,000 acres less than Alternative A). Prescribed burning would also eliminate an estimated 20,460 acres of shrub habitat (about 19,000 acres less than in Alternative A). This could potentially result in less habitat lost or adversely impacted for pygmy rabbit, sage grouse and special status neotropical migrants, although, as discussed in Alternative C, this could easily be offset by the projected increase in habitat burned by natural fires. Other Special status species are not projected to be adversely affected but the increase in open grassland habitats could improve or increase habitat for burrowing owls, long-billed curlew, northern harriers, grasshopper sparrows and possibly others.

Impacts to special status species and their habitats from mining related activities could be substantially less than in Alternative A because of the increased acreage recommended for withdrawal from mineral entry and closed to materials sales and fluid minerals leasing. Most areas of moderate to high minerals potential, primarily within the northern half of the resource area, would remain open for extraction, however, and impacts to special status species, populations and habitats in this area would be essentially the same as in Alternative A.

Approximately 190 miles of trails and sand washes and 70 miles of roads would be closed under this alternative as compared to no closures in Alternative A. Fifty miles of trail/sand wash closure would occur within the vicinity of the heavily used Hemingway Butte trailhead with the remaining 140 miles occurring elsewhere within the Owyhee Front SRMA, including all trails and sand washes east of Highway 78. The trail/sand wash closures could have a substantial beneficial impact on a number of special status species including the ferruginous hawk, long-billed curlew, burrowing owl, pygmy rabbit, kit fox, western ground snake and long nose snake. Beneficial impacts would be in the form of habitat rehabilitation and protection from future habitat and species disturbance. All road closures would occur within the Owyhee Canyonlands SRMA and would result in very limited or no benefits to most special status species with the possible exception of bighorn sheep. Alternative D would also result in converting all 420,434 acres of "Open" designation to Limited - Level 2 designation in much of the north half of the resource area and a Level 5 designation in the south half which would eliminate all cross-country OHMV activity. This would result in reduced physical damage to special status species habitats and disturbance of individual special status species and populations throughout the resource area. There would also be substantially more area closed to all OHMV activity through additional SRMA, ACEC and wild, scenic and recreational river designations in Alternative D. This would eliminate or prevent adverse OHMV impacts to most special status species within these areas.

The overall impacts of the prescribed OHMV actions in Alternative D are projected to be beneficial but would depend on adequate enforcement of OHMV regulations.

Other recreation program management actions in Alternative D include construction of the Guffey Butte and Jump Creek nonmotorized trails, establishment of two equestrian trailheads, upgrading or reconstructing facilities at seven recreational sites and construction of seven additional recreation sites. Impacts would be similar to those described for Alternative A except that additional habitat and population disturbance could occur to any special status species at or near new facilities.

In Alternative D a total of 223 miles of eligible rivers and streams would be recommended as suitable for wild, scenic or recreational river designation. This is 129 more miles than recommended in Alternative A. This would result in closure of these reaches to most impacting activities including OHMV activity and all mineral extraction which could benefit bald eagle, peregrine falcon, mountain quail, white pelican, Preble's shrew, California bighorn sheep, a number of special status bats and neotropical migrants, leopard frog, spotted frog, redband trout and possibly others. Both short-term and long-term impacts would be beneficial.

Designation of 265,016 acres of ACEC (112,558 acres more than Alternative A) along with prescribed elimination of most surface disturbing activities should have mostly beneficial short-term and long-term impacts on any special status species within these areas. Activities which would be eliminated include livestock grazing (only from the six smallest ACECs), woodcutting, OHMV activity and mining. The impacts of each of these have already been discussed.

The large increase in VRM Class 1 acreage in the south half of the resource area would result in additional strict limitations on prescribed burning and the elimination of juniper woodcuts in these areas. This could have either beneficial or adverse impact depending upon which special status species are present. It could result in short-term protection of habitat for pygmy rabbit but could also result in long-term loss of habitat as juniper eventually dominates these habitats, eliminating most understory vegetation. Class 1 designation would also eliminate or severely restrict most other surface disturbing activities which should benefit most special status species.

Construction of wildlife water developments and nesting islands and structures would be the same as described in Alternative A. Both the short-term and long-term impacts of these actions would be beneficial.

Land tenure adjustments through purchase or exchange would have a net beneficial short-term and long-term impact on most special status species. Most adjustments would result in acquisition of high quality habitat (including special status species habitat) and consolidate public ownership within ACECs, WSAs, national river corridors, etc. These acquired lands would normally be managed with special restrictions beneficial to special status species. Land tenure adjustments for other purposes would include special stipulations to avoid or mitigate adverse impacts on special status species.

Impacts from land use authorizations would be substantially less than those projected for Alternative A. Exclusion of new rights-of-ways and other authorizations within ACECs, SRMAs, crucial wildlife habitats and wild horse areas would protect an undetermined but substantial number of additional acres of special status species habitat from the types of disturbances associated with these actions. Rights-of-ways, leases and permits would continue to have a net adverse impact on special status animal species outside these special areas, however, as habitat is dedicated to other uses. Short-term and most long-term impacts are projected to be adverse although much less so than in the other alternatives.

Facilitating the reintroduction of peregrine falcons, mountain quail, Colombian sharptail grouse, California bighorn sheep and other special status animal species into suitable, unoccupied habitats could have a very beneficial impact on these species/subspecies. Establishment of additional viable populations could contribute to the eventual downlisting or delisting of the peregrine falcon and help prevent possible listing of others.

Establishment of additional bald eagle roost trees within bald eagle winter habitat along the Snake River would have a beneficial impact on wintering bald eagles populations by enhancing a habitat component that is currently limited.

Protection of all existing and potential goshawk nesting habitat by prohibiting the cutting or burning of all woodland habitats (excluding western juniper) would have a beneficial impact on this species by helping to ensure the continued existence of suitable nesting habitat.

Implementation of AMPs, HMPs and other resource activity plans should have a mostly positive or neutral affect on most special status species and habitats since these plans are generally designed to maintain or improve resource conditions. Activity plans and associated NEPA documentation must assess impacts to special status species and include goals and objectives for these species and habitats.

Conclusion

The overall impact of Alternative D is projected to be beneficial for most special status animal species. Special status animal species associated with riparian/wetland habitats would experience the most significant and immediate benefits in response to reductions in and restrictions placed on livestock grazing. Other management actions that would benefit special status animal species include more restrictive OHMV management throughout most of the resource area; special designations and classifications, including additional national river and ACEC designations and stricter VRM classifications that eliminate or severely restrict most surface disturbing activities; some land tenure adjustments; wildlife habitat improvement projects; protection of woodland habitats and facilitation of special status species reintroductions. Actions that could adversely impact some special status species include closing large areas to juniper woodcutting, expansion of existing recreational facilities and the development of new facilities and use areas, and some land use authorizations. The increasing frequency of naturally occurring fires due to the increased volume of ungrazed or lightly grazed fine fuels could also adversely impact some species while benefitting others.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

Based upon the substantial restrictions to be placed on many land use activities including livestock grazing, OHMVs, vegetation manipulation and others and the proposing of large areas for protection and limited use via various special designations, it is reasonable to assume that this objective would be met for most special status species. Mining, continued intensive OHMV activity, loss of shrub habitats to the projected increase in naturally occurring fires and the closure of large areas to treatment of juniper could preclude meeting the objective for some species.

Wild Horse Management

Change Agents

OHMV activities, recreation use, mining activities, fencing and domestic livestock grazing.

Impact Analysis

There is a projected increase in recreational use, including OHMV use, within the resource area. Much of the increased OHMV use is projected in the Owyhee Front SRMA (Black Mountain and Hardtrigger HMAs). Within the Black Mountain HMA, the Northwest Rabbit and Southwest Rabbit pastures of the Rabbit Creek/Peters Gulch allotment (0517) containing about 11,667 acres would have a OHMV Limited - Level 7 designation. This area would receive heavy OHMV use from May 1 through October 31 of each year. The area is considered winter range for wild horses and would be closed to OHMV activities November 1 through April 30. The season closure would reduce potential conflicts between motorized recreation and wild horses.

This alternative prescribes closure and removal of certain recreational facilities within the Owyhee Front SRMA in response to concerns over wild horse management. Facility closures would involve the Hemingway Butte OHV trailhead and its associated motorcycle trails and sand washes system.

The remaining Black Mountain, Sands Basin and Hardtrigger (except Sage Hen pasture) Herd Area would have an OHMV Limited - Level 5 designation, limiting motorized recreation to existing roads and jeep trails with seasonal closure. The existing Hemingway Butte recreational facility would be closed, reducing OHMV conflicts. The Level 5 designation would greatly reduce disturbance to the wild horses. The reduced adverse impacts of the OHMV activities on wild horses would be closely tied to the ability to enforce OHMV regulations. Short-term adverse impacts would continue or increase in the HMAs until adequate law enforcement and public education programs are implemented.

Public interaction could be limited if monitoring indicates that adverse impacts continue to occur. Restricted public use along with increased public awareness and interpretive signing are projected to reduce major long-term impacts. Organized groups of greater than 15 people, including equestrian events, in HMAs would not be allowed. Group size restrictions and other permitting requirements would be beneficial.

Development of valid existing claims for locatable mineral resources in the HMAs could have increasing detrimental impacts on the wild horses as habitat is disturbed over the next 20 years. The Black Mountain, Hardtrigger and Sands Basin HMAs have moderate mineral potential. The extent of habitat impacts would be determined by the amount of activities, mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and long-term habitat loss, increased public access associated with development and indirect disturbance to the wild horses in the vicinity of mine operation. In Alternative D, the Black Mountain and Hardtrigger HMAs would be withdrawn from locatable mineral entry, closed to fluid mineral leasing and closed to mineral materials disposal. This would preclude any new disturbance.

Implementation of the domestic grazing program has resulted in construction of many miles of pasture and allotment fences within the HMAs. These fences have affected winter range accessibility and the free-roaming movement of the wild horses. Existing domestic livestock management fences would likely remain and the livestock permittees would be responsible for the timely opening of designated gates after their authorized grazing periods. Opening designated gates would allow for greater movement and normal distribution of the wild horses. Only temporary restrictions to the free-roaming behavior would occur during the period of authorized livestock use.

Domestic livestock grazing would be authorized throughout most of the HMAs at reduced AUM levels (see Table LVST-D for adjustments). The appropriate management level (AML) would be maintained and could increase slightly over 20 years. After meeting other land use objectives, available forage would be allocated to wild horses and wildlife. The wild horses would be assured adequate forage because the AML would be in balance with the forage production.

Conclusion

Overall, it is projected that this alternative would have beneficial impacts on wild horses.

Wild horses would be managed within all allotments, except Sage Hen pasture, identified as wild horse herd areas in 1971. Long-term benefits of this management would be high demand for wild horses during adoptions, increased public awareness of the wild horse resource and protection of a natural resource value.

Meeting the Objectives

Objective WHRS 1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

In Alternative D, with the exception of potential impacts from existing mining claims, it is projected that wild horses would be beneficially impacted over the long-term. The majority of the HMAs would be designated a Limited - Level 5 with seasonal closures for OHMVs. This designation and closing the Hemingway Butte OHMV facility would reduce public contact and cause the wild horses less stress. With reduced domestic livestock grazing within the HMA's, less demand would be placed on important water sources and unintentional disturbance resulting from livestock management practices would be reduced. Range improvements, if found restricting free-roaming behavior, would be removed. Management of the wild horses would be improved because of increased public awareness through interpretative signing of the HMAs.

Projected impacts on specific wild horse needs are shown below.

Impacts on General Health and Free Roaming Opportunity

Components	Baseline	Short-Term	Long-Term
Forage Allocation	2329 AUMs	2329 AUMs	2329 AUMs
Viability Level	118 head	118 head	118 head
Estimated Herd Size	178 head	AML	AML
General Health	0	0	+

[redacted]

Free Roaming Opportunity

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	+
0521	Seeding	2	0	0	+
0521	Bridge Creek	3	0	0	+
0522	Rats Nest	1	+	+	+
0556	Shares Basin	1	0	0	+
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	0	0	+
0516	Hardtrigger	4	0	0	+
0516	Piute	5	0	0	0
0516	Hemingway	1	-	0	0
0508	Wilson	1	0	0	+
0508	Soldiers Cap	2	0	0	+
0508	Salmon Butte	3	-	0	+
0508	Whiskey Hill	4	N/A	0	+
0508	Alkali	5	N/A	0	+
0651	North Rabbit	1	0	0	+
0651	Little Kane	2	0	0	+
0651	State	4	0	0	+
0517	West Rabbit (N)	1	-	0	0
0517	West Rabbit (S)	2	-	0	0
0517	Kane Spring	3	0	+	+
0517	Moores Creek	6	-	0	+
0517	South Rabbit	5	0	0	+
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	-	-

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

[redacted]

Water Availability for Wild Horses in HMAs on a Year Long Basis

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	0
0521	Seeding	2	0	0	0
0521	Bridge Creek	3	-	0	0
0522	Rats Nest	1	0	0	+
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	0	0
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	+
0516	Piute	5	0	0	0
0516	Hemingway	1	-	0	0
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	+
0508	Salmon Butte	3	0	0	+
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	-	0	0
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	0	0	0
0517	West Rabbit (S)	2	0	0	0
0517	Kane Spring	3	0	0	+
0517	Moores Creek	6	0	0	+
0517	South Rabbit	5	0	0	+
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	-	-

0 = Potential Impact

+ = Beneficial Impact

- = Adverse Impact

N/A = wild horses not managed for in this area

511

[redacted]

Public Interaction/Contact with Wild Horses Resulting in Disturbance

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	+
0521	Seeding	2	0	0	+
0521	Bridge Creek	3	0	0	+
0522	Rats Nest	1	-	0	0
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	0	0
0516	Opalene	3	-	0	0
0516	Hardtrigger	4	0	0	+
0516	Piute	5	0	0	+
0516	Hemingway	1	-	0	0
0508	Wilson	1	-	0	0
0508	Soldiers Cap	2	0	0	+
0508	Salmon Butte	3	0	0	+
0508	Whiskey Hill	4	N/A	0	+
0508	Alkali	5	N/A	0	+
0651	North Rabbit	1	-	0	+
0651	Little Kane	2	0	0	+
0651	State	4	0	0	+
0517	West Rabbit (N)	1	-	0	0
0517	West Rabbit (S)	2	-	0	0
0517	Kane Spring	3	+	+	+
0517	Moores Creek	6	+	+	+
0517	South Rabbit	5	+	+	+
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	NA	-	-

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

Livestock Grazing Management

Change Agents

Riparian management practices, vegetation treatments, range improvements, winter grazing, wild horse management, interim management policy for wilderness study areas, national river designations, ACEC designations and mining activities.

Impact Analysis

Active preference is currently 135,116 AUMs with an average actual use (1988-1997) of 96,676 AUMs. Alternative D would result in a 5-year preference of 52,685 AUMs and a projected 20-year preference also of 52,685 AUMs. See Table LVST-D for forage allocations by allotment.

The reduction in stocking rates during the next 20 years would be attributed to the following management actions: 1) Remove livestock by July 15, or earlier if necessary, in all pastures with riparian or wetland areas regardless of size or monitoring status. 2) Eliminate livestock grazing on all allotments where 75% or more of the allotment acreage is in an early seral stage. 3) Allow a maximum of 40% annual forage utilization of key forage species where 40% or more of the allotment is in late seral and 10% or less is in an early seral stage (total of 856 acres in the Owyhee Resource Area). Otherwise allow a maximum of 30% annual forage utilization of key forage species. NOTE: Improvement in range condition is not assumed for livestock grazing. With rest from livestock grazing, range monitoring would be used to assess the change in range condition. Reductions and increases in livestock use would depend upon the results of monitoring and allotment assessments.

Elimination of livestock grazing from pastures with riparian ecosystems would have a negative impact on current available AUMs. Pastures containing riparian ecosystems in any condition or size would receive no livestock grazing after July 15. Some of the projected initial reductions in AUMs would potentially become available as best management practices are implemented. Because pastures identified with riparian ecosystems may also have other limiting factors, identification of lost AUMs attributed solely to riparian management is not possible. The total value for all limiting factors identified is a loss of 84,697 AUMs initially and continuing over the next 20 years. Impacts on active preference by allotment are shown in Table LVST-D. See Table RIPN-1 and RIPN-2 for affected riparian allotments and pastures.

Vegetation treatments (prescribed burning) and juniper harvest would result in a short-term loss of 814 AUMs during prescribed burn management because of rest from livestock grazing for three consecutive growing seasons; one growing season before the burn (to ensure sufficient fuel to carry a fire) and two growing seasons after the burn (to enhance vegetation establishment). The long-term impacts would result in an increase of 2,713 AUMs potentially available in the prescribed burn areas. It is not projected that the vegetation treatments would result in increased active preference on any allotment but some potential AUM reductions could be averted. See Table LVST-3 for a summary of potential vegetation treatments.

	Vegetation Treatments			
	Prescribed Burn	Burn and Seed	Juniper Harvest	Total
Acres	64,400	0	17,000	81,400
Short-term loss(AUMs)	644	0	170	814
Long-term gain(AUMs)	2,147	0	567	2,713

Land treatments and range improvements solely oriented towards meeting livestock forage requirements would not be allowed. Land treatments and range improvements would be limited to those that resolve identified resource problems and contribute to achieving properly functioning ecosystems. Although none are identified in Alternative D, any range improvement projects needed to implement allotment grazing systems and manage livestock distribution would be designed to decrease unsatisfactory rangeland conditions and to meet other resource objectives. Existing fences would be modified and any new fences would be designed and constructed to meet Lower Snake River District Fence Policy standards for the wildlife species present to minimize barriers to big game movement. With implementation of the RMP and with allotment assessments, any range projects would be projected to have a beneficial impact upon stocking rates by helping to avert potential AUM reductions. See Table LVST-3 for a summary of potential range improvement projects for Alternative D.

Those pastures in the Snake River geographic reference area that are below 3,500 feet in elevation would have a season-of-use change from spring to winter. This would allow slow improvement in the salt desert shrub communities. The range condition factor has indicated all current and prescribed winter pastures would have reduced livestock grazing. Initial active preference for the winter allotments indicates a 11,352 reduction with no AUMs being returned over the next 20 years. See Table LVST-D for season-of-use by allotment.

Management of the Wild Horse Herd Areas for Alternative D would have no impact on the livestock grazing program. The Sage Hen Pasture of the Hardtrigger Wild Horse Herd Area would not be managed for wild horses. Two pastures of the Reynolds Creek Allotment (Alkali and Whiskey) not currently managed for wild horses would be managed under alternative D.

Interim management policy for wilderness study areas restricts range project developments. Rangeland development may be constructed within WSAs but only if carefully designed to maintain or enhance the wilderness values.

National river designations could result in livestock being removed from designated river channels. This could result in a change in the affected allotment's season-of-use but there are no projected reductions in active preference.

ACEC designations would result in six small areas being fenced to exclude livestock but would not result in any reductions in livestock grazing preference. Many of the proposed ACECs restrict the placement of salt, fencing, juniper removal and water developments. These restrictions would not have a significant impact on the grazing program. Within the Owyhee River Bighorn Sheep Habitat Area ACEC no water developments would be constructed. See Table ACEC-D for management actions.

The Stone Cabin Mine would not impact stocking rates. Livestock grazing would already be reduced on the Jump Creek (0570), Flint Creek (0503) and Silver City (0569) allotments for other reasons such as upland range condition and riparian management.

Conclusion

Most of the resource concerns identified in the allotment summary (Appendix LVST-1) would be resolved in the next 20 years. At the end of 20 years 31% of the uplands in the Owyhee River and Jordan Creek geographic reference areas would remain in a early seral stage with 23% in a late seral stage. About 6% of the lands in the Snake River geographic reference area would improve. Water, riparian and fish objectives would be met on 90% of the stream miles. Livestock use (active preference) would be 52,685 AUMs at the end of 20 years, a 62% decrease from current active preference.

Meeting the Objectives

Objective LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

This objective would generally be met in Alternative D because most resource concerns that were identified would be resolved.

Locatable Minerals

Change Agents

Mineral withdrawals for wilderness study areas, Section 202 wilderness study lands, corridors along rivers eligible for national river designations, special recreation management areas, recreation sites and ACEC's, Special Status Species management, recreation use, bonding and land tenure adjustments.

Impact Analysis

Withdrawal actions taken by Congress or the Secretary of the Interior in Alternative D would remove nearly 742,267 acres (about 51%) of public lands in the resource area from location and development under the general mining laws, subject to the valid existing rights of pre-existing mining claims. Validity examinations would be conducted on these claims to determine whether or not valid existing rights exist. See Table LOCM-D for specific closures.

Restricting exploration and mining activities in areas containing Special Status plant species could adversely impact future mineral development in the arid lowlands in the northern part of the resource area, particularly along Castle Creek. Limits on exploration and mining as well as increased costs of mitigation could reduce the economic viability of industrial mineral development in the Castle Creek area.

Restricting exploration and mining activities in riparian and wetland areas would have an impact on methods and costs of exploration activities and could increase the costs of mining enough to make mining unprofitable under current mineral commodity prices. This is particularly important for exploration and surface mining of low-grade precious metal deposits in the Silver City Range. Lessor impacts on exploration and mining would occur elsewhere in the resource area due to fewer conflicts between important riparian or wetland areas and high-value mineral lands.

Maximum bonding for full reclamation and potential accidents could discourage many potential operations due to the difficulty in obtaining a bond of sufficient size to cover every possible situation. Most small miners and prospectors may not have the financial resources to qualify for a large bond. Large companies could hesitate to operate on public lands where maximum bonding could increase operating costs substantially. Providing for public review of all plans and reclamation standards prior to mineral entry for exploration and mining operations would likely increase costs to operators due to additional processing time to where many exploration and mining activities, particularly small ones, would become uneconomic.

Land tenure adjustments would remove a small amount of land from location under the general mining laws. Mineral reports would be prepared on all lands involved in the sales and exchanges and mining claims on public lands would require a validity examination to determine any valid existing rights.

Conclusion

The overall impact of Alternative D on locatable mineral management would be to severely restrict future exploration and development of locatable mineral resources in the resource area.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Physical access to the resource is provided for by the mining laws. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Two main criteria were considered when determining if the objectives were being met: 1) Developmental restrictions - if maximum bonding, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 2) Potential likelihood of development - is the resource present in economically minable amounts.

Objective LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

Alternative D appears to be too restrictive and inflexible to facilitate mineral exploration and development and also meet this objective.

Availability of Lands for Locatable Mineral Activity Relative to Resource Potential - Alternative D

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	17,377	709,214	726,591
Withdrawn	7,963	734,304	742,267
Split Estate			
Open	1,918	102,135	104,053
Withdrawn	257	29,131	29,388

Fluid Minerals

Change Agents

Mineral leasing closures and restrictions in wilderness study areas, Section 202 wilderness study lands, corridors along rivers eligible for national river designations, special recreation management areas, recreation sites and ACECs, special status species management, riparian and wetland management, bonding, recreation management, wildlife habitat, and land tenure adjustments.

Impact Analysis

In Alternative D 790,166 acres (54%) of public lands in the resource area would be closed to oil and gas and geothermal leasing. Of this acreage 65,131 acres are currently closed. All but 21,170 acres of split-estate lands (oil and gas) and 30,236 acres (geothermal), where the surface is privately owned, would be open to leasing. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for fluid mineral leasing. Those WSA's are not specifically listed in Table FLUM-D, however considerable areas shown in the table overlap or are contained within the WSA's.

Restriction of exploration and drilling activities in areas containing special status plant species, riparian values and wetlands through seasonal occupancy restrictions would impact 374,452 acres (about 25%) of public lands in the resource area. These seasonal restrictions should not seriously impede fluid mineral development. The requirement for maximum bonding for full reclamation and to restore potential damage caused by accidents or emergencies, combined with public review of reclamation standards and plans prior to leasing could substantially increase costs to the mineral industry. Companies could become discouraged from filing fluid mineral leases in marginal areas because of the risk of delays in processing drilling permits and possible increased costs for conducting exploration and drilling operations. See Table FLUM-D for specific constraints.

Recreation activities would generally be incompatible with fluid mineral exploration and development. Noise, dust and heavy machinery associated with drilling operations would adversely impact recreational opportunities on the public lands. Future drilling sites may have to be fenced off from nearby established recreation areas, such as campgrounds, OHV parks or trails for safety purposes. Access routes into fluid mineral development sites may have to be restricted or relocated to not interfere with certain recreation activities. Established recreation sites may require a buffer of public lands where development activities would be restricted to reduce disturbance to recreationists.

Land tenure adjustments would cause some minor shifts in the amount of land available for fluid mineral leasing.

Conclusion

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

The outlook for an active fluid minerals leasing and exploration program is poor. There would always be some interest in fluid minerals in southwest Idaho, particularly in low-temperature geothermal resources, but until energy prices are much higher than present or until new technology becomes available, no leasing activity is likely to occur. Large scale land closures and excessive development restrictions provide a disincentive for energy companies to invest in areas containing marginal fluid mineral potential.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

Alternative D is too restrictive due to land closures and other developmental constraints to meet the objective.

Availability of Lands for Fluid Mineral (Oil and Gas) Activity Relative to Resource Potential - Alternative D

Management Constraint	Low Potential	Zero Potential	Total
Public Lands			
Open	222,095	82,145	304,240
Open-Seasonal Occupancy	194,715	179,737	374,452
Open-No Surface Occupancy	0	0	0
Closed	547,550	242,616	790,166
Split Estate			
Open	49,043	63,228	112,271
Closed	16,280	4,890	21,170

Availability of Lands for Fluid Mineral (Geothermal) Activity Relative to Resource Potential - Alternative D

Management Constraint	High Potential	Low Potential	Total
Public Lands			
Open	9,506	294,734	304,240
Open-Seasonal Occupancy	10,184	364,268	374,452
Open-No Surface Occupancy	0	0	0
Closed	153,688	636,478	790,166
Split Estate			
Open	410	102,795	103,205
Closed	11,145	19,091	30,236

Mineral Materials

Change Agents

Population growth, mineral withdrawals for wilderness study areas, Section 202 wilderness study lands, corridors along rivers eligible for national river designations, special recreation management areas, recreation sites and ACECs, Special Status Species management, bonding, recreation use and land tenure adjustments.

Impact Analysis

In Alternative D, 18,809 acres (about 43%) of public lands with high potential for sand and gravel would be closed to mineral development. Restricting the location of material sites for county or State use would adversely impact the maintenance of local county roads and State and Federal highways through higher transportation costs and increased time to complete construction and repair work on roads and highways. Increased commercial demand projected for the future would be constricted to fewer public lands and could result in a shortage of salable minerals available for commercial exploitation with a resultant increase in price to the public. See Table MMAT-D for specific closures. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for mineral material disposal. Those WSA's are not specifically listed in Table MMAT-D, however considerable areas shown in the table overlap or are contained within the WSA's.

Restricting the development of material sites in areas containing special status species, riparian values or wetlands would result in additional land closures and serve to further reduce the availability of public lands for salable mineral development.

The requirement for maximum bonding for full reclamation and to restore potential damage caused by accidents or emergencies, combined with public review of reclamation standards and plans prior to disposal could substantially increase costs of mineral materials. For some small disposals, the cost of a bond could exceed the cost of the material being purchased and use of the material site would become uneconomic.

Land tenure adjustments would remove a small amount of public land from availability as material sources.

Conclusion

The overall impact of Alternative D on salable mineral management would be to significantly reduce the availability of salable mineral resources for State, county and private use. Costs of production and transportation would increase due to higher transportation costs and some construction projects would take longer to complete due to increased haulage distances from available material sources. Requiring maximum bonding of all mineral material mining plans could create delays and significantly increase costs of producing mineral materials in Alternative D. The economic disincentives would have an adverse impact on salable mineral development in the resource area.

Meeting the Objective

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

This objective would not be met in Alternative D because a relatively large amount of land with a high potential for mineral materials would be unavailable.

Availability of Lands for Mineral Materials Activity Relative to Resource Potential - Alternative D

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	23,387	647,838	671,225
Closed	18,809	778,824	797,633
Split Estate			
Open	1,370	113,871	115,241
Closed	20	18,180	18,200

Recreation

Change Agents

Recreation use, OHMV designations, special designations, recreation facilities, acquisition, vegetation treatments and locatable and fluid mineral activities.

Impact Analysis

Changes in the Availability of Recreation Opportunity Settings

Alternative D would result in some shift in the amount of acreage available in each of recreational opportunity spectrum (ROS) classifications. ROS classifications are an expression of the type of experiences one can achieve while in an area with various social, physical, and managerial settings. See Table RECT-3 for details on each of the settings. Semi-primitive motorized settings would remain the predominate opportunity class covering about 42% of the resource area. In the northern portion of the resource area (the Snake River and Jordan Creek geographic reference areas), roaded natural, rural, and urban settings would accompany semi-primitive motorized settings. Some semi-primitive nonmotorized settings would exist in remote mountainous areas. To the south (Owyhee River geographic reference area), semi-primitive motorized settings would continue to isolate numerous pockets of semi-primitive nonmotorized settings across the open plateau areas, as well as define a concentration of primitive and semi-primitive nonmotorized settings encompassing the Owyhee Canyonlands and the North Fork Owyhee River Backcountry SRMAs. In the south, roaded natural settings with some rural acreage would only be associated with the Owyhee Uplands National Back Country Byway and several connecting roadways.

ROS Classifications Availability In Alternative D (See Map RECT-1)

ROS Class	Total Acres in 1998	Percent of Resource Area in 1998	Percent of Resource Area in 2018
Primitive	234,983	13%	12%
Semi-Primitive Nonmotorized	386,150	22%	23%
Semi-Primitive Motorized	794,010	44%	42%
Roaded Natural	177,080	10%	12%
Rural/Urban	187,269	11%	11%
Total	1,779,492	100%	100%

Management actions in Alternative D are projected to cause changes in ROS class acreages primarily within primitive and semi-primitive motorized and nonmotorized settings. Changes in classification could result from 1) the closure of some areas or select vehicle routes to OHMV activity under various OHMV designations; 2) some increased administrative access to rangeland developments (wildlife guzzlers); 3) vegetation treatments; or 4) development of new roads or upgrading existing vehicle routes for mineral exploration and development. Closure of some vehicle routes within the enlarged Owyhee Canyonlands SRMA would result in removal of some semi-primitive motorized roadway corridors through this area. This would increase the availability of primitive and semi-primitive nonmotorized settings. In other areas, administrative routes to new wildlife projects (guzzlers) are projected to be unconstructed jeep trails, potentially reducing the amount of semi-primitive nonmotorized settings available. Mineral development, such as that in the vicinity of Silver City, would change semi-primitive motorized settings to roaded natural settings with the construction of maintained gravel roadways. Recreational development would also contribute somewhat to increased roaded natural settings.

Regardless of the outcome of wilderness designation, all WSA lands plus some surrounding acreage would be managed under VRM Class I in Alternative D. Under this VRM objective, no actions could be taken that would result in the loss of primitive settings or associated semi-primitive settings. A number of roads penetrating into the VRM Class I areas of the Owyhee Canyonlands and North Fork Owyhee River SRMAs, as well as the Juniper Mountain WSAs, would no longer be available for semi-primitive motorized use. Consequently, as roads naturally revegetate there would be a small increase in the amount of primitive settings in the three affected areas. Some acreage of primitive settings in non-WSA/SRMA lands around upper Nickel Creek would shift to semi-primitive motorized or nonmotorized settings as a result of woodland treatment projects.

Off-highway motorized vehicle (OHMV) designations prescribed in Alternative D would restrict public use on all public lands across the resource area. Restrictions would "Close" 339,061 acres to OHMV use and restrict ("Limit") use on 980,930 acres, the predominate restrictions being the Limited - Level 2 and 5 OHMV designations. No public lands would be "Open" to cross-country travel of motorized vehicles.

Alternative D would result in substantial changes in how the resource area could be used for off-highway motorized vehicle recreation. These changes are detailed in the discussion of impacts on the quality of recreational experiences located further in this recreation analysis section.

Impacts on Recreational Opportunities in Special Designations

Alternative D prescribes intensive management of eight (8) special recreation management area (SRMA) designations totalling 722,121 acres. The North Fork Owyhee Backcountry, North Fork Canyon, Deep Creek and Owyhee Canyonlands SRMAs would be combined with the surrounding extensive recreation management area (ERMA) to create one large Owyhee Canyonlands SRMA encompassing much of the Owyhee River GRA. Alternative D also recommends congressional designation of 223 miles along the North Fork, East Fork and South Fork Owyhee River, and Deep-Nickel-Current Creek, Boulder Creek-Rock Creek and Jump Creek as national wild/scenic/recreational rivers within the enlarged Owyhee Canyonlands, Boulder Creek and Jump Creek SRMAs.

Special designations in Alternative D would focus attention on long-term protection or enhancement of recreational opportunities dependent on predominately primitive and semi-primitive motorized and nonmotorized settings, and, in some areas, roaded natural settings. In Alternative D management actions prescribed in SRMAs are tailored toward 1) protecting existing ROS classifications by minimizing changes in the areas' current physical settings (Jordan Creek GRA), 2) altering ROS management and physical settings to reduce OHMV impacts on wild horses, wildlife, soils and vegetation (Snake River/Jordan Creek GRA), 3) improving public pedestrian (foot) access to allow the enjoyment of primitive settings by a larger sector of the general public (Owyhee River GRA), and 4) enhancing primitive settings through vehicle route closures (Owyhee River GRA). Alternative D would also ensure maintenance of existing roaded natural experiences associated with recreation sites as well as enhancing these experiences through development of new sites in the enlarged Owyhee Canyonlands and Snake River BOP SRMAs. However, in the Owyhee Front SRMA, Alternative D would reduce roaded natural and semi-primitive motorized recreation opportunities associated with the Hemingway Butte OHV Trailhead along Reynolds Creek Road in response to wild horse concerns.

National river designation for 223 miles of river canyons would include withdrawal of the affected lands from mineral entry, precluding any potential irretrievable loss of outstanding primitive recreational values considered to be of national significance.

Impacts on the Quality of Recreational Experiences

Not only would management actions prescribed in Alternative D result in a change in the availability of the various recreational opportunity settings, management actions would also affect the overall quality of recreational experiences that would be obtainable in the resource area.

Primitive settings require a sense of remoteness, a vastness (size), and little or no evidence of human use. Currently, recreational users seek out the canyonlands and some adjoining plateau and rock outcrop landscapes of the Owyhee River system for primitive recreation experiences. In Alternative D, these lands are prescribed for mostly Class I and II visual resource management (VRM) where management action would be allowed if they would only slightly affect the naturalness or scenic quality of the landscape. Recreation management actions prescribed in Alternative D affecting VRM Class I and II areas include short portage trails around two rapids on the East Fork Owyhee River, foot/equestrian trail systems within the North Fork Owyhee River watershed, and closure of some vehicle routes on the plateau lands of the Owyhee Canyonlands SRMA. Projected increases in primitive recreation use on the East Fork would not be enough to cause substantial adverse effects on naturalness, aesthetic qualities or solitude opportunities in the river canyon, except at isolated areas of concentrated use, such as the rapid portages. Increased levels of recreation use are projected to produce unsightly, random, unstable trailings around the rapids. Construction of one good maintained trail would prevent this. The foot trails along the North Fork would be constructed consistent with management objectives for a National Wild River designation to not adversely affect naturalness or scenic values for which primitive experiences are dependent. There are currently no maintained trails in the resource area except the short (one-eighth mile long) Jump Creek Trail. By developing foot access into the North Fork system there would be a greater diversity in the type of nonmotorized experiences available in primitive and semi-primitive natural settings. Closure of select roads around the Owyhee Canyonlands would enhance primitive and semi-primitive experiences on the plateau.

Other recreation management actions pertaining to development and maintenance of recreation facilities (campgrounds, picnic areas, trailheads and foot/equestrian trails) in semi-primitive motorized and roaded natural settings would provide increased choices in access opportunities without substantially affecting the natural or aesthetic character of the landscape, but would contribute to increased recreation use. The affected semi-primitive and roaded natural settings would generally be managed as VRM Class II and III areas. Some modifications of the natural landscape would be permissible in these ROS and VRM classifications, particularly if they enhance recreation opportunities. Trail and recreation site developments, such as in the North Fork (Map RECT-4), Guffey Butte (Map RECT-5) and Jump Creek areas, would improve nonmotorized access into rugged canyon areas; giving access to many who would otherwise not have an opportunity to experience these settings. Such facilities tend to promote localized increases or concentrations of recreation use at a rate greater than at undeveloped sites; demanding a greater managerial presence.

Alternative D prescribes closure and removal of recreation facilities within the Owyhee Front SRMA in response to concerns over wild horse management. Facility closures would involve the Hemingway Butte OHV Trailhead and its associated motorcycle trails and sand wash systems (a 4,000-acre area). The Hemingway Butte OHV Trailhead is the most heavily used OHV-type recreation site in the resource area. Its closure would cause a shift in OHMV recreation use to the remaining two trailheads. This would cause increased impacts on their trail systems and affect their social settings (increased crowding), thereby reducing the quality of OHMV activities across the Owyhee Front.

Projected increases in visitor use in the resource area would not adversely affect the quality of recreational experiences through the year 2018 by causing a sense of crowding or by contributing to the deterioration of the natural landscape, except in the Owyhee Front. Rapidly increasing use of the Owyhee Front would hamper BLM's ability to reduce or prevent resource deterioration of undeveloped sites on an overall basis. Localized vandalism, facility maintenance and unauthorized OHMV use would likely remain the principal cause of resource deterioration and facility damage at already developed sites such as Jump Creek and the off-highway vehicle (OHV) trailheads. Reducing the amount of land area available for OHMV opportunities (changing from a OHMV Limited - Level 1 to Limited - Level 5 and 7 designations) at the same time that recreation use is steadily increasing would concentrate OHMV use to the detriment of both the physical and social settings which OHMV users are dependent upon for a quality recreation experience.

Alternative D prescribes additional developments to mitigate resource damage as well as increase recreational opportunities along the Owyhee Front for activities other than OHMV use. Alternative D provides specific direction for development of equestrian trail trailheads and trail systems in the Owyhee Front (outside of wild horse HMAs) and Snake River BOP SRMAs to accommodate increased interest in horseback activities. These trail systems could also be used for hiking. In recent years, there has been a dramatic increase in equestrian use for competitive events, casual use and commercial outfitting. To date, the BLM has only been able to meet the need for facilities associated with motorized (OHMV) recreation use along the Owyhee Front.

OHMV designations are intended, in part, to protect the existing recreational settings by preserving the natural and aesthetic character of select landscapes in the face of ever increasing numbers of recreation users. The OHMV designations prescribed in Alternative D would substantially reduce the quality of the existing OHMV experiences in the resource area as a whole as well as restrict nonmotorized experiences during the spring. There are five specific impacts that need to be discussed:

The Limited - Level 2, 5 and 7 designations that would cover much of the resource area would affect all OHMV-dependent recreation activities until after April 30 of each year unless it could occur directly next to maintained dirt, gravel or asphalt roads or along a select, limited number of designated OHMV routes. Since all recreational activities require some kind of vehicle transportation to gain initial access to public lands, recreation use would have to cease until May of each year. These designations would prevent most OHMV use of the Owyhee Front during the most favorable use period of mid-February through April. They would limit access opportunities for snowmobile use. The designations would affect not only motorized activities, but would also reduce some hiking and backpacking opportunities. River floating opportunities would not likely be affected because it is projected that existing shuttle routes would be designated for OHMV use.

In the Owyhee Front, the shift from the existing Limited - Level 1 to Level 5 OHMV management within wild horse management areas would substantially reduce existing OHMV activities on about 36,000 acres which center around the use of motorcycle/ATV trails and sand washes. There are about 140 miles of motorcycle/ATV trails and sand washes that would no longer be available for public use. The Kane Spring pipeline road complex would also have to be closed to public recreational use (about 18 miles) to make the OHMV designation effective at controlling recreation use. The affected area would include all lands west of Reynolds Creek and the middle to upper elevations of the Rabbit Creek area. The 23,524 acres of the Fossil Creek Addition SRMA, north of Highway 78, would no longer have about 50 miles of sand washes and trails available for use. In total, the quality of OHMV activities (availability of vehicle routes) on about 60,900 acres would be severely reduced, eliminating 190 miles of trails and sand washes.

The extensive Limited - Level 2 and 5 designations would help protect the scenic and natural qualities of the landscape for those OHMV users who participate primarily in sight-seeing and driving for pleasure activities with their off-highway vehicles on the network of primitive roads and jeep trails ("trail riders"). To many OHMV users the vehicle (motorcycle, ATV, or 4X4 truck) is principally an enjoyable mode of transportation to seek out interesting landscapes or recreation experiences (hunting, rock collecting, photography, etc.). These users are generally content using existing roads and trails and may not enjoy the presence of new vehicle routes that detract from the scenic character of the landscape. Being required to remain on existing vehicle routes and avoiding cross-country travel can be tolerated or even supported if it helps preserve the Owyhee Uplands experience. The Level 2 designation covering much of the northern half of the resource area would allow for the planned development of single-track trails. However, these opportunities would not be available within the Owyhee River GRA which covers much of the southern half of the resource area because of the Limited - Level 5 designation.

The extensive "Limited" designations would also confine another type of OHMV user to the 92,441 acre Limited - Level 7 area of the Owyhee Front. This type of OHMV user consists of the off-road vehicle ("ORV") user. The "ORV" user operates has the same types of vehicles as the "trail rider", but the performance of the vehicle and the physical agility and strength required to operate it at high speed or on difficult terrain are necessary elements for a satisfactory recreational experience. The Limited - Level 2 and 5 designations found elsewhere in the resource area would eliminate the "ORV" experience.

The "Closed" designation that would encompass a large portion of the enlarged Owyhee Canyonlands SRMA in the vicinity of the North, East and South Fork Owyhee River, and Juniper Mountain would result in closure of select roads and jeep trails. The closure would affect over 70 miles of dirt roads and jeep trails.

A number of fence gates define legal divisions between Federal and private properties where the public has no right of passage. Many of these gates can be locked, particularly during the hunting season. Land actions (acquisitions of easements or free title, and exchanges) in Alternative D have the potential for providing some public access where locked gates or signing prevents access to large blocks of public land.

Improved upland vegetation and riparian conditions brought about by new grazing systems and substantially reduced livestock numbers would cushion wildlife populations against the natural adverse effects of cyclic climatic conditions and possibly result in population increases. These population increases would also apply to fisheries where improved riparian conditions would result in improved instream fisheries habitat conditions. Greater diversity, numbers, and sizes of fish would be projected for the angler. However, from a recreational perspective, there could be a disadvantage to improving riparian conditions. Smaller stream channels returning to good or excellent conditions could become overgrown with dense willow and other shrubby riparian vegetation. This vegetation could crown over much of a stream to make fishing extremely difficult. In narrow, steep-walled canyon areas, the riparian vegetation could extend across the entire canyon bottom; making hiking and camping activities difficult if not impossible. Improving riparian conditions could also affect boating safety in select areas along the narrow upper reaches of Deep Creek as more shrubby vegetation overhangs the stream channel.

Alternative D would allow prescribed burning and woodcutting. However, under constraints imposed by the alternative, only a total of about 3,200 acres could be burned per year (a total of 64,400 acres over 20 years). Woodcuts could reach 17,000 acres over 20 years. These treatments would help control the spread of serial juniper or reduce sagebrush competition for grass species on sagebrush-bunchgrass ecological sites. Such actions are intended, in part, to maintain or restore forage and forage/cover ratio requirements for wildlife; contributing to more stable wildlife populations and higher quality hunting opportunities in the area. However, the woodland treatments would degrade the scenic quality of the landscape and, in the case of woodcutting, the landscape's natural character. Adverse visual impacts could last as long as 50 years depending on the age class of serial juniper stands being treated (see visual impact analysis). During this period, the quality of recreational experiences would be diminished. Treatments would be concentrated in the Jordan Creek area and northern portion of the Owyhee River area within mostly VRM Class II areas. Numerous treatments in this region would have a cumulative effect on the quality of recreational experiences of all types within predominately semi-primitive motorized and nonmotorized settings, and, to some extent roaded natural settings. Very few primitive acres would be affected. In semi-primitive motorized settings, reduced natural and scenic character may be tolerated more readily by hunters (a primary user group) in light of the improved game populations projected. Those using roaded natural settings along such roads as the Owyhee Uplands National Back Country Byway would have their recreation experiences most affected because the sight-seeing and driving for pleasure activities sought on these roads are highly scenic dependent. In time (25 to 50 years), visual effects of treatments would be largely gone and the quality of the recreation experiences restored or enhanced. Reburns of treated areas are projected to occur on a regular basis. Reburns would have minimal visual impact after several growing season because larger trees would generally not be involved, thereby having little long-term effect on recreational experiences. For prescribed burn projects affecting mostly semi-primitive motorized and nonmotorized settings found on sagebrush-grassland ecological sites outside of the woodland region, the burn and possible subsequent drill seeding would not effect visual quality over the long term, but would somewhat reduce naturalness to the detriment of semi-primitive nonmotorized experiences.

Concerns for watershed protection in Alternative D would most likely to have a long-term effect on the availability of OHMV trails in the roaded natural and semi-primitive motorized settings of the Owyhee Front SRMA within the Limited - Level 7 designation. It is projected that a number of miles of trail would eventually have to be closed temporarily or permanently to stabilize or reverse erosion caused by off-highway motorized vehicles.

Alternative D would allow for some locatable and fluid mineral exploration and development activities. Most mineral activities affecting recreation use are projected to be concentrated in the Silver City area and, to a lesser amount, the Owyhee Front. Mineral development in the DeLamar and Florida Mountain area would result in a change in ROS class from semi-primitive motorized to roaded natural, as well as reduce the quality of surrounding semi-primitive settings. The nature of open-pit mining, however, would preclude the public from using much of the roaded natural setting because of safety reasons during the time of mine operation. The quality of semi-primitive recreation experiences on lands immediately surrounding the mine operation would be reduced by visual and audio intrusions. For more detail on the DeLamar and Florida Mountain mineral activities, refer to the Stone Cabin Mine EIS. Additional mine sites are projected to be developed in the Silver City area resulting in a cumulative effect on recreational

experiences ranging from exclusion, restricted access, and degradation of natural and scenic quality. Other mineral activities, such as exploration for oil and gas resources, could also cause new roaded natural corridors and cause localized reductions in the quality of recreational experiences in the semi-primitive motorized settings of the Owyhee Front GRA (outside the Owyhee Front SRMA).
To protect the high quality of primitive and semi-primitive recreational experiences in the watershed of the Owyhee River system, Alternative D recommends withdrawal of all lands in the Owyhee Canyonlands SRMA from mineral entry. This withdrawal would affect the canyon systems of all eligible river segments within the resource area, except Boulder Creek-Rock Creek and Jump Creek. The SRMA designations that accompany these river segments are also recommended for withdrawal.

Conclusion

Alternative D would provide for intensive management of recreation resources and recreation use on 722,121 acres in eight (8) special recreation management areas (SRMAs). Included in this acreage would be the recommendation for congressional designation of 223 miles of river canyon along the North Fork, East Fork and South Fork Owyhee Rivers, Deep-Current Creek, Boulder Creek-Rock Creek and Jump Creek as national wild, scenic and recreational rivers to afford long-term protection to the rivers' nationally significance primitive recreation values.

The restrictive OHMV designations would eliminate OHMV cross-country travel from the resource area year-round and would severely diminish other OHMV route-dependent recreation uses during the spring months of March and April. In the eastern half of the Owyhee Front SRMA, motorcycle/ATV trails and sand washes could be used as part of a designated system but only during a portion of the customary OHMV use season, severely reducing the value of the Owyhee Front for OHMV use. Elsewhere, all OHMV use would be restricted to existing or designated roads and jeep trails, and to some single-track trails for motorcycles/ATVs, but not until after April 30th, thus reducing vehicle access for a wide variety of springtime recreation activities. The canyonlands of the Owyhee River system and some surrounding plateau lands would be "Closed" to motor vehicle use except at select locations to allow float boat access.

Much of the resource area (42%) would remain in semi-primitive settings. In VRM Class II/III areas, woodland treatment projects would moderately to severely reduce the quality of semi-primitive recreation experiences until affected lands have recovered (25 to 50 years). Over the long term, treatment projects could improve the quality of recreational experiences, especially for hunters because of increased or stabilized game populations.

The VRM Class II areas prescribed in Alternative D would generally protect existing recreation settings and experiences except in areas of open-pit mining (Silver City area). Mineral activities would severely reduce the quality of semi-primitive recreation experiences and result in the shift of some semi-primitive motorized recreation settings to roaded natural settings. The VRM Class I areas would have existing primitive setting protected as well as allow some shift from semi-primitive to primitive settings as "Closed" roads revegetate.

Meeting the Objectives

Objective RECT 1: Provide for off-highway motorized vehicle (OHMV) use on public lands while protecting sensitive resource values.

Off-highway motorized vehicle designations in Alternative D would not fully meet the objective of providing for OHMV opportunities within the resource area. The designations would restrict or eliminate the types of opportunities available (off-trail use, early springtime use) throughout the entire resource area in exchange for increasing the level of protection afforded to sensitive resource values.

Objective RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

The special recreation management areas identified in Alternative D would contain all lands needing special attention because of intensive recreation use and conflicts with sensitive resource values in predominately roaded natural and semi-primitive motorized settings, and all lands needing protection of nationally significant recreation and scenic values associated with primitive settings.

Objective RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Alternative D would provide permanent protection on 100% of the eligible river miles in the resource area under a suitable recommendation for all 223 miles of eligible river segments.

Objective RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Alternative D would not fully meet the objective. Though it would provide for continued recreational experiences at existing sites and would establish direction in the development of new recreation sites throughout the resource area particularly in the Snake River geographic reference area, it prescribes removal of the Hemingway Butte OHV Trailhead, the most heavily used OHMV-type recreation site in the resource area.

Objective RECT 5: Develop a trail system that provides a range of motorized and nonmotorized recreation opportunities for the public's enjoyment of primitive, semi-primitive nonmotorized, semi-primitive motorized and roaded natural settings.

Alternative D would not fully meet this objective because it would reduce the availability of motorized trail opportunities and recreation facilities in the Snake River geographic reference area despite increasing recreation demand for OHMV experiences. The alternative would, however, increase the diversity of recreation opportunities through foot/equestrian trail development as well as provide public information pertaining to that diversity.

Objective RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Alternative D would fully meet this objective.

Objective RECT 7: Retain at least 10% of the Owyhee Resource Area in a primitive recreational opportunity (ROS) setting.

Alternative D would exceed this objective by providing long-term protection to existing primitive settings found on 12% of the resource area.

Wilderness

Change Agents

OHMV activities (road and trail maintenance and closures) and recreation facilities.

Impact Analysis

The 294,740 acres of wilderness study areas (WSAs) in the resource area (see Map WNES-1) are required to be managed under BLM's Wilderness Management Policy (IMP) to protect their wilderness characteristics; naturalness, and outstanding opportunities for primitive recreation or solitude. The IMP prohibits taking any action considered to adversely affect a WSA's suitability for congressional wilderness designation. An action is considered an impairment of wilderness suitability if: 1) it individually, or when considered collectively with other existing human imprints, makes the imprints of man substantially noticeable to a casual observer in the WSA as a whole, and/or 2) the action reduces the value of the WSA for wilderness as compared to other land uses. No actions have been identified in Alternative D which would impair wilderness values on WSA lands.

In Alternative D, as with all other alternatives, the recommendation for congressional designation of 195,980 acres of public lands as wilderness is carried forward. Within this acreage are 3,890 acres of non-WSA, Section 202 FLPMA study lands which have also been recommended for wilderness designation. Unlike WSA lands, Section 202 study lands are to be protected only from unnecessary and undue degradation under authority of Section 302 of FLPMA. No actions which would cause unnecessary or undue degradation have been identified for Section 202 lands in Alternative D.

Alternative D prescribes management of WSA and Section 202 lands to a higher standard than required by the BLM Wilderness IMP. Alternative D provides direction for management of WSAs and 202 lands through identification of most all affected lands as visual resource management (VRM) Class I and a "Closed" off-highway motorized vehicle (OHMV) designation (see Maps RECT-1D and VISL-D). These classifications and designations expand beyond the established WSA and 202 boundaries to include some additional contiguous public lands while excluding several major road corridors through the WSA and 202 lands, including:

1) the access road to the Garat Crossing launch site for the East Fork Owyhee River.

2) the road from Bull Camp south to the Garat plateau which passes through Crutcher Crossing on the East Fork Owyhee River.

3) the two roads extending westward from the 45 Ranch site on the South Fork Owyhee River.

4) the road extending from the Owyhee Uplands National Backcountry Byway southward across the top of Juniper Mountain and down Bedstead Ridge to Bull Camp.

5) the access road to Coyote Hole on the South Fork Owyhee River.

6) a short access route to one of the prescribed North Fork Owyhee River trailhead sites.

The road corridors would be managed as VRM Class II and OHMV Limited - Level 5. The classifications and designations identify the level of development and uses allowed. Within the Class II road corridors, small launch site developments and road maintenance to existing standards would help stabilize fragile sites and areas that are currently concentrating recreational use. The recreation developments and road maintenance would not attract additional recreational use since access roads would be retained at their current level of construction, a condition which tends to discourage use by the general public (driving for pleasure and sight-seeing).

Within VRM Class I areas, the "Closed" OHMV designation would lead to the eventually natural rehabilitation (revegetation) of over 70 miles of existing roads and jeep trails (ways). This rehabilitation would increase the amount of lands in the resource area containing wilderness characteristics and would enhance the overall quality of wilderness values on WSA and 202 lands. The only developments within the VRM Class I areas would be primitive foot and equestrian trails. Trail construction would include short portage routes around two rapids on the East Fork Owyhee River. This action would eventually be needed to mitigate impacts from primitive recreation use. Portage trails around the rapids are causing soil and vegetation damage that would inevitably lead to reduced naturalness and scenic quality as recreation use levels increase. Trail construction could also include up to 30 miles of foot and equestrian trails throughout the North Fork Owyhee River area (see Map RECT-3C). This trail system would enhance opportunities for the public to have access to the North Fork's wilderness values without adversely affecting the area's overall wilderness characteristics or scenic values. Trail construction is consistent with the BLM Wilderness Management Policy.

Conclusion

Implementation of Alternative D would ensure protection of wilderness values on all WSA and Section 202 study lands regardless of the outcome of congressional wilderness designation. Road and jeep trail closures and expansion of VRM Class I and OHMV "Closed" designations beyond the existing WSA and Section 202 lands would not only eventually increase the amount of public lands containing wilderness characteristics, but would also enhance wilderness values on existing WSA and Section 202 lands.

Meeting the Objectives

Objective WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

Alternative D would exceed this objective by managing wilderness values to a higher standard than that required under the BLM Wilderness IMP and eventually increasing the amount of public land in the resource area containing wilderness characteristics.

Objective WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

Alternative D would exceed this objective by giving immediate management protection to WSA and Section 202 study lands as well as select additional contiguous lands.

Visual Resources

Change Agents

Vegetation treatments, watershed stabilization projects, wildlife guzzlers, recreation facilities, OHMV activities and locatable and fluid mineral activities.

Impact Analysis

Alternative D prescribes managing all public lands in the resource area under one of three visual resource management (VRM) classes ranging from VRM Class I to Class III (see Map VISL-D).

VRM Class	Acres
VRM Class I:	310,566
VRM Class II:	662,164
VRM Class II-IMP:	0
VRM Class III:	347,261
VRM Class IV:	0

VRM Class I would be the most restrictive class where the intent is to preserve the natural character of the landscape. All of these VRM Class I lands would have no developments other than foot and equestrian trails and would have over 70 miles of roads and jeep trails closed to motorized use. Class III would allow noticeable changes to the characteristic landscape. These classifications are defined in detail in Appendix VISL-1.

Vegetation Treatments

Visual impacts would be most extensive from vegetation treatments in VRM Class II and III areas. In the juniper woodland communities (predominantly in the Jordan Creek and the northern half of the Owyhee River geographic reference areas), visual impacts would occur from prescribed fires in seral juniper stands and from harvesting seral stands for fuelwood. Alternative D identifies burning up to 64,400 acres over the next 20 years, about 3,200 acres per year. About one-half of this (30,300 acres) would be within the juniper woodland communities. In addition, commercial harvesting of juniper fuelwood is approaching 600 acres per year and could approach 1,000 acres per year by the year 2000. Cutting and burning could affect many of the fuelwood harvesting areas.

Within harvest areas, during the cutting period and for a number of years afterwards, the scenic quality of affected clear-cuts would be substantially reduced by a nearly continuous scattering of slash piles, numerous stumps about 8 inches in height, and constructed roads and jeep trails. The textures and colors of clear-cut areas would contrast sharply with those of surrounding woodland communities or the remanent sagebrush-grassland communities. However, the general shape or form of the clear-cut openings and the line defining them would mimic that of natural openings found throughout the woodland region. As a result, the adverse impacts on visual quality would diminish as the viewing distance increases. Once the viewing distance reaches several miles (beyond foreground viewing) and the presence of slash would not be readily discernible, the visual impact would be minimal. As the clear-cuts regain an abundance of new understory vegetation (grasses, forbs and shrubs), and needles and bark fall from slash piles, the casual observer would not be readily able to distinguish between natural openings and clear-cuts. Mitigation of visual impacts for projects located in the background (generally greater than 3 miles) could be hastened through the use of post-cut prescribed fire. The fire would add a temporary (3 to 5-year) adverse impact on the landscape by blackening it, but would remove the contrasting cutting debris.

The duration of adverse impacts from a woodcut site viewed within the foreground (usually less than three miles) would be dependent upon whether the site receives a post-cut prescribed burn. Burns would generally occur from 2 to 5 years after tree harvesting. As with background viewing, the fire would generate its own adverse impacts on visual quality by adding a sharply contrasting black color to the landscape, but would eliminate the effects of slash piles. With the aid of wind, rain, snow and natural or planted revegetation, the visual effects from the blackened ground would disappear within 3 to 5 years. Only blackened stumps would remain as a reminder of the woodcutting. The stumps could remain for 20 years or more with their visual presence only being lessened by the growth of surrounding shrubs that provide screening. In the absence of a post-cut fire, which is projected to occur about 25% of the time, slash and stumps would be visible well beyond 20 years with stumps lasting 50 years or more.

With cutting and post-burn effects lasting from 10 to 50 years, and cutting projected to occur at a rate of about 800 acres per year, it is highly probable that juniper fuelwood harvesting could contribute to reduced scenic quality on about 17,000 acres by the year 2018. At this time, about half of the acreage (8,000 acres) would retain the severe, short-term adverse visual impacts projected while the remaining acreage would be in varying stages of recovery.

In juniper woodland communities where only prescribed fire would be used, the effects of fire on visual quality would also depend upon viewing distance as well as the size of the trees involved. When viewed from the foreground, burned areas would contain numerous charred to partially charred tree skeletons and blackened earth and rock. Visual quality would be severely degraded by contrasts in line, form, color and texture. The larger the trees involved, the greater the visual degradation would be. Partially burned trees could retain reddened dead foliage for 3 to 5 years. The reddish color may be seen for several miles, well into background viewing areas. Only after the needles have dropped would trees in close-background areas become indiscernible on the landscape. The presence of burned background trees would also be lessened as the blackened bark falls away to leave a light grayish wood color not readily detectable behind a back drop of sagebrush-grassland communities. This process could take more than 5 years. As in the foreground, burned larger trees would have more of a visual impact in the background areas by requiring greater viewing distances before becoming indiscernible. Foreground viewing of barkless tree skeletons would remain for as long as 50 years or more depending upon the size of trees burned.

Assuming at least a 5-year period before fire evidence would be reduced, and assuming that 1,500 acres of juniper woodlands would be burned each year independent of woodcut areas, it is highly probable that there would be as much as 7,500 acres of woodland landscape showing the more severe adverse visual impacts from prescribed fire each year. By the year 2018, the woodland communities could cumulatively show another 22,500 acres of residual burned skeleton forests having a lesser adverse impact on visual quality. In summary, it is highly probable that as much as 30,000 acres would have some degree of visual degradation by the year 2018. Since prescribed burning would be done annually to control the juniper woodland community, visual impacts from burning would always be present. However, over time the degree of impact would lessen as reburns would be affecting smaller and smaller age and size classes of encroaching seral trees.

In those areas where prescribe fire would affect sagebrush-grassland communities, the visual impacts would be minimal and of short duration. Prescribed fires in these plant communities would eliminate old-age sagebrush and return the ecological site to an earlier successional stage. This would leave a vegetative mosaic of open grasslands intermingled with remanent stands of big sagebrush on deeper soiled swale sites or low sagebrush on shallower, often stony, low ridgeline sites. This intermingling of line, form, color and texture caused by the variety of vegetation and rocky soil profiles, often

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including low, meandering bedrock ledges or plateau breaks, would be considered more scenic than a homogeneous landscape of sagebrush. The adverse effects of fire in the sagebrush-grassland communities would come immediately after the fire and for the following one to three growing seasons when the blackened evidence of the fire persists. The fires would leave behind few vegetation skeletons. Those present would be small (sagebrush) and would be rapidly broken down by livestock and wildlife passage, wind, rain and snow. Because of the rapid recovery of visual quality on sagebrush-grasslands, and the relatively small amount of acreage to be burned at scattered locations, prescribed fire is not projected to be a major contributor to the cumulative impact of vegetation treatments in the resource area.

Cumulatively for burning and cutting, it is projected that more severe adverse visual impacts would occur on a total of 15,500 acres per year after the year 2018. An additional 30,000 acres would show a lesser impact due to natural recovery. These impacts would occur predominantly in juniper woodland communities. This acreage is about 18% of the woodland communities. There is currently no way to quantify how many acres of viewshed would ultimately be affected, either as foreground or background, by vegetation treatments. Given the type of topography and vegetation present, and the subsequently large viewsheds possible for any treatment site, some type of treatment site, whether detected as such or not, would be visible from nearly any observation point on 30% to 50% of the woodland region.

Alternative types of vegetation treatments (chaining or chemical spraying) would produce effects similar to those associated with cutting and burning. In the case of spraying, blackened trees would be absent yet reddened foliage and tree skeletons would persist. Chaining would uproot trees rather than leave behind stumps.

Watershed Stabilization Projects

Watershed stabilization projects would be used to secure eroding streambanks and prevent further erosion in side slope gullies, usually the result of concentrated grazing by livestock and recreation use. The projects would use unlimbed juniper trees to line stream channels (attached by steel cables) and rock gabion dams or wooden planks. Initial placement of these projects would include disturbance to riparian vegetation and soil areas or, in the case of juniper structures, would leave the stream lined with numerous, unsightly dead trees and an occasional exposed steel cable. Such disturbances would be short-lived. Disturbances associated with rock gabion dams would be mitigated by riparian vegetation regrowth and channel siltation in less than 5 years. Juniper logs would become imbedded in streamsides, as intended, within 5 to 10 years. Once vegetation is restored, usually to a degree beyond that present prior to the project, the affected stream channels would show an overall improvement in visual quality. The improvement would be attributed to the increased abundance, and sometimes diversity, of riparian vegetation. Increasing riparian vegetation along canyon bottoms would enhance the overall scenic quality of the landscape by enriching it with color and texture. These efforts could also improve the year-long abundance of surface waters that would enhance visual character.

Wildlife Guzzlers

Wildlife guzzlers would consist of a fence exclosure and an encatchment system that would look like a corrugated, square to rectangular piece of roofing set just above ground level. Such projects would usually be associated with dry climate areas of the Owyhee Front. As such they do not release water to generate riparian vegetation screening, but sagebrush and grasses could become dense within the exclosures. To mitigate the visual intrusion of these small projects, the guzzler sites could be painted a compatible color and placed to not draw attention within the affected viewsheds.

Recreation Facilities and Activities

Existing and proposed recreation site developments in Alternative D are few and widely scattered and generally would not affect scenic quality of the resource area as a whole. Recreation sites would be designed to reflect concern for the four basic elements of the characteristic landscapes found in their viewsheds; form, color, line and texture. The Owyhee Front OHV Trailheads and Jump Creek Recreation Site facilities would alleviate OHMV-generated soil damage, public health and sanitation concerns, and excessive soil damage caused by indiscriminate foot trailings in sensitive vegetation communities. All these factors are contributing to a decline in visual quality at frequently used recreation sites. Recreation site developments similar to the North Fork Campground that could occur in Alternative D would reduce visual damage to recreation sites from concentrated recreation use as more and more people venture into the Owyhee Uplands plateau.

The foot/equestrian trail system prescribed in Alternative D for the North Fork Owyhee River region (Map REC-3C) would allow increased public opportunities to experience the exceptional scenic qualities of the Owyhee Uplands plateau. At the same time, this development would result in both initial construction impacts and localized visitor use impacts. Initial impacts would include construction of trails along or across river channels currently unaffected by any development. Trails would average 2 to 4 feet in width, have longitudinal gradient objectives of 10% or less. In Alternative D, no bridge crossings would be constructed. Such trail characteristics would produce a trail system that would have minimal effects on visual quality. Vegetative screening from juniper woodlands and moderately dense to dense riparian communities coupled with careful location of necessary trail switchback areas (nestle behind rock escarpment) would keep the trail substantially unnoticeable on affected landscapes as a whole. Recreation use of the trails would result in localized trampling of vegetation and soil compaction at popular primitive campsites, leading to localized adverse visual impacts. These impacts could be kept to a minimum by periodically resting some campsites. Without such a trail system somewhere in the Owyhee Canyonlands to help manage recreation use, there is a moderate to high probability that unregulated foot traffic associated with increasing backpack use would eventually develop indiscriminate trailings along the river corridors similar to those present in Jump Creek Canyon. Monitoring of the portage trails around several rapids on the East Fork Owyhee River suggests that it would take a relatively small amount of recreation use to cause a serious trailing and erosion problem of talus slopes in the canyonlands. These trailing cause considerably greater visual degradation than would a constructed and maintained trail system.

Implementation of off-highway motorized vehicle designations in Alternative D would help mitigate visual impacts across the Owyhee Front. Removal of the Hemingway Butte OHV Trailhead prescribed in Alternative D would eliminate unauthorized hill climbing and would eventually lead to the natural revegetation of the butte. Under the general authority of emergency closures (43 CFR 8340) and the shift from a Limited - Level 1 to Level 5 and 7 designations, closing some sites to prevent further OHMV-related visual damage is projected. Through continued public education, facility maintenance and enforcement under the Limited - Level 5 and 7 designations, additional hill climbing areas in the West Rabbit Creek area and the Owyhee Front SRMA as a whole would be reduced or eliminated and OHMV trails would be limited to their current extent.

Elsewhere in the resource area, Limited - Level 2, 5 and 6 designations and "Closed" areas in Alternative D would restrict development of new jeep trails and would allow for some orderly development of single-track trails in the north portion of the resource area. Area-wide restrictive OHMV designations would help reduce off-road activity overall. However, unauthorized OHMV travel is projected to continue in some areas despite the restrictive designations.

Energy and Mineral Development

Open pit mining operations at the Stone Cabin and DeLamar Mines are visible from many areas within the Silver City area and Jordan Creek watershed (VRM Class II) and surrounding VRM Class III and Class IV lands. Impacts on visual quality vary within the region depending upon the viewer's elevation and slope aspect. When in full view of the mining operation, impacts on visual quality are significant in both the short term and long term, and can only be partially mitigated. Cumulative impacts on visual quality in the Snake River and Jordan Creek geographic reference areas from past and existing mining are already considered to be substantial. Localized visual degradation is projected to continue from ongoing mineral exploration and development activities in the Silver City Range. There is currently a low probability that mineral development of the magnitude of DeLamar and Stone Cabin mines would occur in other nearby mountains, as adjacent areas have been thoroughly explored and appear to have low mineralization.

Along the Owyhee Front there is a low potential for the exploration of oil and gas resources. For the purposes of environmental analysis, the Owyhee RMP provides a development scenario relating to these resource uses. Oil and gas activities would introduce a series of small facilities to explore and extract discovered reserves. Along the Owyhee Front, rolling, highly convoluted peneplain topography could be used to mitigate the developments. However, because of their vertical character as compared to the somewhat horizontal character of the natural landscape found in the Owyhee Front as a whole, some level of substantial impact on visual quality is projected in very localized viewsheds.

Conclusion

Implementation of Alternative D would result in the widespread degradation of scenic quality in the woodland communities of the resource area from vegetation treatment projects. It is projected that about 18% (45,500 acres) of the woodland region would exhibit slight to severe impacts on scenic resources over the next 20 years. Affected viewsheds in the woodland region could exceed 30% of the land base. However, over the long term (20-50 years), vegetation treatments would produce a highly scenic landscape diverse in the four basic landscape elements (line, form, color and texture). Widespread visual degradation to a severe degree in also projected to occur from ongoing mineral exploration and development activities in the Owyhee Mountain Range. Though initially affecting natural landscapes, the development of recreation facilities to manage both motorized and nonmotorized recreation use would have some beneficial long-term localized impacts on scenic quality at isolated, specific sites and areas, as would the removal of the Hemingway Butte hill climbing site. Enforcement of "Limited" OHMV designations throughout the resource area would also benefit scenic values.

Meeting the Objectives

Objective VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Alternative D would fully meet this objective because it provides for a broad range of visual settings to compliment the resource area's recreational opportunities including VRM Class I designations to protect the highly natural and highly scenic areas of the resource area.

Cultural Resources

Change Agents

Scientific collection, mining activities, ACEC designation, OHMV activities, vandalism, livestock grazing, wildlife habitat exclosures, streambank stabilization, acquisition and weathering and decay.

Impact Analysis

Planned actions which produce adverse impacts on cultural resource sites are limited by management procedures to scientific collection and excavation, and would only occur in situations where scientific research by an accredited entity (such as a university or other research organization) is permitted. These impacts would be mitigated, however, by the compilation of scientific data which are deemed to be significant by the archaeological profession. Beneficial impacts are produced by management strategies designed to preserve scientific data for future use, or for recreational or educational use. In Alternative D this latter category includes the protection accorded to the Oregon Trail and the existing Guffey Butte/ Black Butte, Silver City and DeLamar National Register Districts.

Adverse impacts which occur to cultural resource values as a result of the implementation of projects generated by other resource activities are generally diminished by the performance of project specific cultural resource inventories in advance of project implementation. If it appears (as a result of a cultural resource inventory) that a cultural resource site would be adversely impacted by project implementation, the project be redesigned to avoid the impact. Should this not be possible, adverse impacts would be mitigated by appropriate strategies, including scientific excavation and collection, depending on the significance of the site in question. A significant exception to this would come from projects conducted under the Mining Law of 1872. It is often not possible to respond within a reasonable time frame to potential adverse impacts caused by mining operations.

Impacts from minerals related projects would be mitigated somewhat in Alternative D by the designation of an Area of Critical Environmental Concern (ACEC) in the Rooster Comb Peak area. The ACEC designation requires a Plan of Operations to be submitted for any minerals action proposed within the ACEC area, and an extension of the time period for which response is required. This extended time frame would provide a greater opportunity for the mitigation of damage to significant cultural resource sites.

Additional ACEC designations prescribed for Alternative D are Lambert Table and Sinker Creek. Management actions designed to protect or enhance cultural resource values within these areas include a limitation of OHMV activity in the Sinker Creek area to afford extra protection to the Oregon Trail and associated historic sites; and a change in the livestock turnout date in the Lambert Table area to protect significant prehistoric cultural resource sites from the effects of livestock trampling.

Additional adverse impacts on cultural resource values would occur from natural weathering and decay.

Beneficial impacts on cultural resource sites could occur as a result of projects generated by other resources. Wildlife exclosures could have the effect of isolating a cultural resource site from adverse impacts from livestock grazing, riparian treatment plans could benefit cultural resource sites by providing streambank stabilization, restrictions on OHMV use could lessen the effects of vandalism, and lands actions taken to block up Federal land holdings could facilitate the management of large clusters of significant cultural resource sites.

Cultural resources are fragile and non-renewable, and adverse impacts are generally cumulative through time. Therefore, short-term impacts (such as a single occasion of vandalism) could increase in severity from natural forces (erosion, etc.) so that the long-term (20 year) effect increases in severity. In Alternative D all of the sites known to be deteriorating from the effects of change agents would be visited to determine site condition and mitigation needs. It is possible that during this period of time some of the 444 sites known to be deteriorating would be destroyed, however a large number would be afforded adequate protection.

Conclusion

Beneficial effects would be appreciable from actions taken to actively manage cultural sites, such as site monitoring to determine rate of deterioration, and the development of site treatment plans, and from ACEC designation. Other beneficial effects would accrue as a result of the implementation of land treatment programs (riparian, wildlife exclosures, etc.) land exchanges and recreation program restrictions to OHMV.

Fewer adverse impacts (than Alternatives A, B and C) would occur to the majority of sites known to be deteriorating from the effects of change agents, including minerals program actions, livestock trampling, OHMV use and natural forces.

The overall effect over the duration of the plan would be generally beneficial.

Meeting the Objectives

Objective CULT 1: Protect known cultural resource values from loss until their significance is determined.

5 years: This objective would be met.
20 years: This objective would be met.

Objective CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

5 years: This objective would be met.
20 years: This objective would be met.

Objective CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

5 years: This objective would be met.
20 years: This objective would be met.

Hazardous Materials

Change Agents

Land use authorizations and mining activities.

Impact Analysis

The Bureaus approach to hazardous materials management on public lands in this and all alternatives (1) seeks to prevent the generation and acquisition of hazardous wastes; (2) is intended to reduce the amounts and toxicity of wastes generated; (3) provides for the responsible management of waste materials in order to protect the natural resources as well as the people who live and work on and those who use Bureau-managed lands; and (4) provides for aggressive cleanup and restoration of public lands that are contaminated by waste materials.

All proposed activities on public lands would be thoroughly analyzed as to whether materials potentially hazardous to the environment and the public welfare would be affiliated with the activity. A full disclosure of all hazardous materials, their use, storage, transport and disposal would be required prior to authorization.

The largest hazardous materials site in the resource area is the DeLamar Mine. The cyanide heap leach pond and cyanide pond are on public lands and are permitted by the State of Idaho. Large quantities of chemicals and fuels are transported over Bureau administered roadways as part of this mining operation. Operation of the Stone Cabin Mine would require additional chemicals and fuels.

Conclusion

The overall impact of Alternative D on hazardous materials management would not be substantial.

Meeting the Objectives

Objective HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands.

This objective would be met.

Areas of Critical Environmental Concern

Change Agents

Relevant change agents for each area are listed below. The impact analysis for each of these change agents applies to those areas where identified. Impacts on specific areas are addressed where notable. See Table ACEC-4D for a tabular impact analysis summary.

- Guffey Butte/Black Butte Archaeological District: recreation use.
- Owyhee River Bighorn Sheep Habitat Area: livestock management, recreation use and OHMV activities.
- Boulder Creek Outstanding Natural Area: livestock management.
- North Fork Juniper Woodland Outstanding Natural Area: water developments, livestock management, fencing, recreation use and OHMV activities.
- Cinnabar Mountain: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Coal Mine Basin: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities and recreation use.
- Hells Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities and mineral materials activities.
- Jump Creek: livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and recreation use.
- Juniper Creek Watershed: livestock management, juniper removal, fire management, locatable minerals, recreation use and OHMV activities.
- Juniper Mountain: water developments, livestock management, fencing and recreation use.
- Lambert Table: livestock management.
- McBride Creek: rights-of-way, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Pleasant Valley Table: livestock management, juniper removal, fire management, fluid minerals activities and recreation use.
- Rooster Comb Peak: rights-of-way, juniper removal, fluid minerals activities, and OHMV activities.
- Sinker Creek: rights-of-way.
- Sommercamp Butte: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- Squaw Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- The Badlands: rights-of-way, water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- The Tules: recreation use.
- Upper Deep Creek: water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable mineral activities, recreation use and OHMV activities.

Impact Analysis

Excluding surface, subsurface and overhead rights-of-way in all nineteen areas (compared with all or portions of six areas in Alternative A) would have a beneficial impact on the principal resource values identified for each area, as well as other values. Scenic, cultural, and biological values within the immediate areas would be maintained by precluding ground disturbance and aerial obstructions, however resource degradation outside of the specified areas could be higher as more land area could be required to develop a given right-of-way.

Prohibitions on water developments would generally benefit botanical, wildlife and scenic resources as ground disturbing actions and new livestock concentration areas would be precluded. Potential weed introductions would be minimized as would conflicts with special status plants. Scenic values would be maintained by reducing the potential for visual intrusion. Restrictions on water developments would generally have a beneficial impact on the identified values. In the five areas where water developments could be constructed (Guffey Butte/Black Butte, Juniper Mountain, Lambert Table, Rooster Comb Peak and Sinker Creek), some short-term and long-term adverse impacts on botanical and scenic values caused by ground disturbance and changes in visual character are projected. Wildlife, especially big game and upland game species, would generally benefit from wildlife water developments as habitat use would be extended seasonally. Because clearances would be conducted for all projects prior to authorization, cultural resources would not be adversely impacted by water developments.

Prohibiting salt placement in all nineteen areas would have a beneficial impact on the vegetative, cultural, scenic and wildlife resources of these areas. Salt prohibitions would prevent trampling, soil compaction, and direct vegetation mortality due to the increased soil salinity.

Prohibiting livestock grazing in five small areas that have been recognized for their botanical resources would increase the value of these areas as rangeland reference areas and RNAs. Restricting livestock grazing in the remaining 15 areas would generally be beneficial for the vegetative, scenic, and wildlife resources of these areas. Restricting grazing to protect cultural resources, for which some of these areas have been recognized, is not projected to greatly benefit cultural resources. The portion of Sinker Creek occupied by the Oregon Trail is currently fenced and protected from livestock grazing.

Fencing would be prohibited or restricted in all areas. Prohibiting additional pasture fences would protect the scenic qualities of some areas and could improve or maintain the vegetation resource by excluding livestock from areas that are currently little used. Fence construction designed to improve dispersal and lower stocking rates would not be allowed in Alternative D, and some pastures or portions of pastures would continue to be overused. Restricting wildlife habitat exclosure fences would have a beneficial impact on the areas since exclosures would only be constructed if they maintained or enhanced the identified values and adverse impacts could be mitigated. Prohibiting exclosure construction at Pleasant Valley Table and The Tules would preclude the potential to exclude them from livestock grazing in the future, should it be needed.

Juniper removal is not applicable in eight of the twenty areas identified in Alternative D, and has been identified as a Change Agent in four of the remaining twelve areas; Juniper Creek Watershed, Rooster Comb Peak, The Badlands and Upper Deep Creek. Prohibiting juniper cutting or burning would benefit the identified resources, primarily the high scenic qualities of these areas.

In Alternative D, fire suppression activities would be restricted or prohibited in all areas. It is projected that prohibiting fire suppression in Juniper Creek Watershed, North Fork Juniper Woodland and Upper Deep Creek would benefit the scenic values of these areas and potentially the upland vegetation, depending on its condition at the time of the burn. However, should fire burn these riparian areas, redband trout could be adversely impacted by the loss of plant cover and increased sediment loads. Prohibiting fire suppression in Squaw Creek could increase its vulnerability to invasion by the exotic annuals that surround it (medusahead wildrye, cheatgrass). Burn treatments to control medusahead near the creek (away from rare plant populations) would not be possible at McBride Creek if fire suppression is prohibited. While prohibiting suppression activities in Coal Mine Basin would ensure the protection of rare plant colonies from heavy equipment, it would not allow the flexibility of protecting these sites or adjacent areas from fire should the need exist.

Restricting fire vehicle use to existing roads and trails in those areas where they are present would provide for protection of structures and facilities both on site and on adjacent ground and also provide for resource protection. Prohibiting vehicle use in four areas where roads do exist (Cinnabar Mountain, Coal Mine Basin, McBride Creek, North Fork Juniper Woodland) would limit access to adjacent areas and could potentially cause more damage from fires than if the areas were only restricted.

Fire rehabilitation restrictions would have a beneficial impact on the areas. Except under threat of severe erosion where sites were already dominated by exotics, and where the principal resource (i.e., special status plants) can be avoided, no seeding would be permitted in order to allow natural regeneration of high ecological condition sites. If severe erosion or invasion by annuals of special status plant sites is projected, seed or seedlings of native species may be used for rehabilitation of these problem areas by aerial or hand planting methods only. Alternative D provides for the determination of rehabilitation suitability on a site specific basis.

In Alternative D, all nineteen areas would be closed to fluid minerals activities. Closures on fluid minerals activities would generally have either a long-term benefit or no impact on the identified values in all areas. While fluid mineral development is unlikely because of the geology of southwest Idaho, closure would preclude the potential for any disturbance.

All nineteen areas would be closed to mineral materials activities in Alternative D. Closure to potential mineral materials activities in these areas is projected to have a long-term beneficial impact. Closures would provide resource protection given the uncertainty of future mineral material needs.

All nineteen areas are recommended for withdrawal from locatable minerals activities in Alternative D. Withdrawal would have a long-term beneficial impact on all resources within the areas.

Designation of more than 500,000 additional acres of SRMA lands would potentially increase human use of all areas except McBride Creek, Coal Mine Basin, Rooster Comb Peak, Cinnabar Mountain and Sommercamp Butte. All other areas are either within or adjacent to an SRMA. While designation as an SRMA implies intensive management while minimizing changes in the present level of natural conditions, overall long-term adverse impacts would be expected due to the projected increase in human use in areas that currently receive very little use. Wildlife, vegetation, cultural, and scenic resources would all potentially be affected.

Regardless of designation of 223 miles as national rivers, including Bald Mountain Canyon, Piute, Juniper, Dukes, Red Canyon, Petes, Corral, Cabin, Noon, Jump, Boulder-Rock, and Pleasant Valley Creeks, public use would substantially increase within the Owyhee River Bighorn Sheep Habitat Area, Juniper Creek Watershed, Boulder Creek ONA, and the Jump Creek area. The overall impacts from increased public use are projected to be long-term and adverse. Areas recommended for national river designations would also be recommended for withdrawal which would have an overall long-term beneficial impact on most resources by precluding mining activities.

Closing 16 areas to OHMV use in Alternative D compared with no OHMV closures in Alternative A is projected to have an overall beneficial impact on scenic, vegetation, wildlife, and cultural resources. Some roads could be reclaimed and the potential development of new roads would be largely discontinued in Alternative D. While Alternative D would not have a significant impact on OHMV users due to the lack of roads in some small areas (Hells Creek, Pleasant Valley Table, Squaw Creek, McBride Creek), recreational, general access, and maintenance related activities would be severely limited within larger areas such as Rooster Comb Peak, Sinker Creek, and Coal Mine Basin.

Conclusion

The overall impact of Alternative D on the areas is projected to be beneficial. Special management actions that control adverse change agents would be implemented.

Meeting The Objectives

Objective ACEC 1: Designate Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and apply special management to protect the values identified.

This objective would be met on 19 out of 20 areas in Alternative D. The 19 areas meeting the relevance and importance criteria would be designated and special management actions to protect the identified resource values would be implemented.

Social and Economic Conditions

Change Agents

Population and recreation growth, livestock grazing levels and social structure.

Population Impacts

Greater Idaho's population is projected to increase throughout the next 20 years. Population growth has been a dynamic force in the current economic growth in southwestern Idaho. Between 1990 and 1993, regional population has grown by 37,700 or 11.3% within the four-county region of Ada, Canyon and Owyhee Counties in Idaho and Malheur County in Oregon (Bureau of Economic Analysis, Regional Economic Information System). However, population growth has taken on new dimensions, including quality of life considerations, here in this latter part of the 20th century. Recent migration has been toward smaller urban or rural areas and away from the large overcrowded metropolitan areas. Quality of life factors such as lower taxes, less inflation, lower crime rates, economic boom and leisure and recreational opportunities are sighted as reasons for this migration trend. This has resulted in increased pressure on the public land to provide a socially acceptable mix of land uses; away from consumptive use toward more nonconsumptive or preservation and retention in the public domain. The Owyhee Resource Area will continue to see increased pressure as regional population growth from nearby Ada and Canyon Counties drives demand for alternative, and often conflicting, uses of these public land resources. Thus, the present dynamic that is causing the change in the rural/urban interface will continue to put pressure on the historical use of the public land resources and BLMs management of those resources in the future.

The following impact analysis is based on the modeling of ranch budgets for typical ranch operations within Owyhee County and computer modeling using input/output analysis of the regional economy for Owyhee, County, Idaho as discussed in Chapter 3 and in the appendix. (See Appendix SOCE-2 for a short summary of the modeling technique used in this impact analysis.)

[redacted]

Ranch Level Impacts

Decreases in the number of Animal Unit Months (AUMs) permitted for livestock grazing (96,676 AUMs to 52,685AUMs, or 44,291 AUMs) will have negative economic impacts on the ranch community. Average income above operating costs under this alternative will decrease for each ranch operation (see table below).

Ranch Operating Impacts

	Per Ranch Average	Total
Jordan Valley	$ -7,700	$-285,400
Marsing	$ -28,000	$-223,900
Bruneau	$ -53,700	$-107,500
Total		$-616,700

County Economy Impacts

Direct and indirect output into the economy would decrease by $794,000 under this alternative. Regional income would decrease by $265,000 and total employment would decrease by 6.

County Level Impacts

Total Industry Impact	
Direct plus Indirect	$ -794,400
Total Value Added	$ -297,000
Total Regional Income	$ -264,900
Total Economic	$-1,091,300
Total Employment	-6

Recreation Impacts

General recreation activity is projected to increase approximately 70% between 1998 and 2018. However, it is not suggested that the increased recreation activity would be in response to BLM actions, rather, the regional population growth would be the root cause of any additional recreational activity on the public lands in the planning area. Very little of this activity will translate into increased economic activity within the county since most goods and services associated with recreational activities within Owyhee County are purchased outside the county. In fact there may be added costs to Owyhee County's budget for increased search and rescue and law enforcement activities.

Social Impacts

Economic pressures on the ranching and rural communities within Owyhee County will continue to grow as external forces (i.e. regional population growth; regional economic growth; and financial institutional change) continues to mount. This alternative will exasperate the situation by creating further feelings of despair and alienation within the ranch community and spill over into many of the local communities within Owyhee county as described in Chapter 3 social conditions.

Conclusion

Negative impacts are projected for the local/regional economy by decreasing regional output of goods and services and employment. The impact is expected to cause some financial hardship for the local or regional infrastructure. Social services and other factors that currently contribute to the quality of life locally and regionally would be negatively (if not significantly) affected.

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Alternative E

Air Resources

Change Agents

Prescribed burning, mining activities, national river designations, road construction, plow and seed operations and aerial pesticide/herbicide application.

Impact Analysis

A total of 105,000 acres are identified for possible prescribed burning over the next 20 years. Up to 15,000 acres per year would be treated with a yearly average of 7,500 acres. The size of individual burns would vary in size to meet air quality standards. During these operations a one to two day localized decrease in air quality would occur. By limiting the size of the burn, allowing a time interval of 72 hours between burns, conducting burns when climatic factors are optimal for good dispersion, and coordinating with other air quality influencing actions in the area at the time of the burns (to reduce potential cumulative impacts), impacts from this action would not be substantial.

Other air quality impacts associated with prescribed burning would be the fugitive dust and ash that would be produced as a result of the burn. The degree to which this would affect air quality is dependent on soil type, topography, ash type, and climate.

Mining operations have several sources of air pollutants. Sources of particulate (i.e., dust) emissions in mining operations include drilling, blasting, and ore collection in the mine pit, plus wind erosion from ore pits, ore loading into trucks, trucks moving over haul roads, and trucks dumping ore into piles, ore loading onto conveyors and ore crushing into small processing sizes, crushed ore screening and crushed ore smoothing, waste rock smoothing in waste piles and wind erosion from waste piles.

The active DeLamar Mine is currently the major source of these types of emissions in the resource area. Air quality impacts due to the Stone Cabin Mine are addressed in the Stone Cabin Mine EIS and will not be addressed in this document. Cumulative impacts of the DeLamar and Stone Cabin mining operations would have an adverse impact on local air quality in the area. Impacts projected from small scale mining operations would not be substantial due to the limited size and nature of these operations, although if in the same vicinity of the DeLamar and Stone Cabin sites they would add to the cumulative impact.

National rivers designations would result in eventual withdrawal of these reaches from mineral entry. This would preclude any impacts on air quality associated with mining or mineral exploration.

Impacts from road construction, plow and seed operations, and aerial application of pesticides/herbicides would result in minor short-term impacts on air quality dependent on size of the operations and adherence to best management practices during the operations.

Conclusion

The overall impact of Alternative E on air quality would not be substantial.

Meeting the Objectives

Objective AIRQ 1: Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.

If proper procedures are followed and BMPs implemented the objective would be met in Alternative E.

Soil Resources

Change Agents

Livestock grazing, livestock water developments, off-highway motorized vehicle (OHMV) activities, fluid mineral and locatable mineral activities, rights-of-way, special designations and vegetation treatments.

Impact Analysis

In Alternative E, it is estimated that broad based erosion rates could decrease slightly on the rhyolite/basalt plateaus and Owyhee (mountain) uplands. Broad based erosion rates could decrease slightly or remain the same on the low elevation areas draining into the Snake River. These broad based decreases in soil erosion would be primarily due to the increase in vegetative density and composition (which would result in increased canopy and litter cover and reestablishment of microbiotic soil crusts) projected over the next 20 years as a result of the grazing management and OHMV management actions under this alternative.

Projected livestock stocking levels (20% reduction in AUMs) and grazing management practices (implementation of intensive grazing systems) over a 20-year period could result in improved streambank stability and a decrease in the following impacts: soil compaction, soil disturbance, microbiotic soil crust disturbance, and vegetative degradation. Increased vegetative cover and litter contribution would help maintain/enhance soil productivity.

Development of livestock water projects could result in degradation of the soil resource at and in the general vicinity of theses sites. This degradation would be in the form of soil compaction, mechanical disturbance of the soil surface by hoof action, and loss of vegetative protective cover and litter contribution. The probability of this occurring is high. By selecting sites that are not in compaction or erosion prone soils some of these impacts could be mitigated.

Impacts on the soil resource in the form of soil erosion, loss of productivity, and soil compaction from off-highway vehicle (OHMV) activities could decrease in Alternative E. This would be due to limiting "Open" designation to approximately 192 acres and applying a "Limited" designation to 1,217,805 acres which would eliminate all cross-country OHMV activity within this area. A total of 101,994 acres would be closed to OHMV use. This could be especially beneficial in the Owyhee Mountains, South Mountain and Juniper Mountain area where OHMV activity is projected to increase. OHMV use could cause mechanical disturbance to the soil surface and destruction of the protective vegetative cover (this includes vascular plants and soil stabilizing microbiotic soil crusts). Mechanical disturbance from OHMV activities could result in destruction of soil aggregates, formation of channels, and a sloughing of washes. More heavily utilized trails would widen and become more deeply moguled and rutted as use levels increase. With the projected increase in casual and competitive OHMV activities mitigating measures would be needed to protect the soil resource (especially on the highly erosive soils).

Fluid mineral and locatable mineral activities could cause substantial soil erosion (and subsequent sediment delivery and productivity losses) depending on the size and scope of the project. Access road construction, drill pad installation, mineral extraction actions, and other surface disturbing activities would be the primary causes. Impacts on the soil resource from these actions would be localized to the specific area of disturbance. The extent of these impacts would be determined by the amount of activity, advances in mining and mitigation techniques, type of operation, location, and other factors. Overall, impacts on soils attributed to mineral activities over the next 20 years is projected to increase slightly.

Designation of 163 miles of national rivers would result in withdrawal of about 52,160 acres of associated lands from mineral entry and avoidance of potential impacts associated with these activities as projected above in the minerals activities analysis. It would also result in strict limitations on vehicle travel and associated impacts as projected in the above OHMV activities analysis. This would result in a beneficial impact on the soil resource.

Right-of-ways could cause varying degrees of disturbance in the resource area. No significant impact on soils is projected from construction of pipelines, powerlines and telephone lines after construction is finished. Roads, especially unsurfaced roads, would cause both short and long-term erosion problems.

Vegetation treatments on an estimated 105,000 acres (prescribed burning, 100,000 acres; burn and seed, 5,000 acres; and woodland harvest, 17,000 acres) according to established standards and the Owyhee Juniper Woodland Management Plan is proposed in Alternative E. Prescribed fire would be the major treatment method most often used. Other treatment methods that may be used would include chemical and mechanical. The projected acreage for chemical and mechanical treatments is about 10,000 acres over the next 20 years. Sagebrush treatment acreage would be 34,100 acres with no seeded acres proposed in this alternative. Vegetation treatments would cause varying degrees of disturbance in the resource area. This would depend on the type and size of the treatment (and, over the long term, the success). By following established BMPs, impacts from these treatments could be reduced. Soil erosion (by wind and/or water) and subsequent sediment delivery and loss of productivity would be a short-term impact. Ash from prescribed fire treatments may act as sediment (moved by either wind and/or water) and affect water quality. After successful revegetation occurs a long-term improvement in watershed condition would result.

Conclusion

The overall impact of Alternative E on the soil resource would be beneficial. Broad based erosion levels could decrease. Streambanks could recover in many areas where grazing systems and protection are implemented. OHMV activities would be managed to better protect the soil resource.

Meeting the Objectives

Objective SOIL 1: Improve unsatisfactory and maintain satisfactory watershed health/condition on all areas.

It is estimated that this objective would be met, or making significant progress toward meeting it, on over 80% of the resource area in Alternative E. This estimate is based on the projection that the actions implemented under this alternative would provide adequate amounts of ground/canopy cover (determined on an ecological site basis) to support infiltration, maintain soil moisture storage, soil productivity, and stabilize soils. Also projected is the decrease in soil compaction and surface disturbing activities which will support permeability rates.

Objective SOIL 2: Achieve stabilization of current, and prevent the potential for future, localized accelerated soil erosion problems (particularly on streambanks, roads, and trails). Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosive process.

It is estimated that this objective would be met, or there would be significant progress toward meeting it, for over 75% of the streambanks by the end of the 20 year period. Many of the existing roads and trails (particularly those that are on soils with high erosion hazard ratings) would continue to be a source of localized accelerated soil erosion. By limiting OHMV activity localized accelerated soil erosion from this source would be greatly reduced. The requirement/implementation of BMPs at the individual project planning level will prevent future problems.

Water Resources

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Implementation of grazing systems would result in both short and long-term improvement in riparian condition as described in Alternative A. Over 20 years, as riparian condition improves, an estimated 90% of all BLM stream miles throughout the resource area would achieve proper functioning and satisfactory conditions if grazing were the only impact analyzed. Water quality would meet State water quality standards on these streams in Alternative E.

Point and nonpoint source mining impacts on water quality would be the same as described in Alternative A. Impacts from historic mining activities would not change from the current level.

OHMV impacts on water quality would decrease in Alternative E as most of the resource area would have options designated to limit OHMV use if needed. Less than 1% of the resource area would have few limitations on OHMV use. More than 99% of the resource area would have options to limit OHMV use if needed or would be closed. Impacts consisting of upland erosion and sedimentation in stream channels, as described in Alternative A, would occur primarily along the Owyhee Front.

Impacts from prescribed burns resulting in increased precipitation runoff and reduced infiltration, as described in Alternative A, would decrease in Alternative E. Prescribed burns would be limited to a maximum of 15,000 acres annually with about 105,000 acres burned over the next 20 years.

Water rights would be obtained on all water development projects and minimum instream flow applications be filed on appropriate high value streams.

Conclusion

Implementation of livestock grazing systems would result in improved riparian vegetation and streambank stability. As a result of these and other management actions, an estimated 85% of all BLM stream miles would be in satisfactory condition after 20 years. Vegetation would improve in composition, density, vigor, structure and cover. Water quality would meet State water quality standards on these stream miles.

Meeting the Objectives

Objective WATR 1: Meet or exceed State of Idaho water quality standards on all Federally administered waters within the Owyhee Resource Area.

This objective would be met on an estimated 85% of BLM stream miles in Alternative E.

Objective WATR 2: Follow current State water rights processes and procedures to acquire water rights for beneficial uses and support establishment of instream flows which are in the public interest.

In Alternative E, water uses on all streams would be provided for through compliance with State water law and in accordance with State licensing processes.

[redacted]

Vegetation

Change Agents

Livestock grazing, vegetation treatments, weed control, livestock water developments, fencing, wild horse management, OHMV activities, and mining activities.

Impact Analysis

Under Alternative E, the primary beneficial impacts for the vegetation resource will be as a result of adjustments in livestock grazing practices including changes in seasons-of use, grazing systems and reductions in stocking rates. Changing the season-of-use on the Snake River Plains from early spring use to fall/winter use would allow the vegetation to maximize production, gain vigor, and establish seedlings. Forage removal is less injurious during the dormant season as compared to the spring season when active growth is occurring.

Adjusting livestock use in those pastures where riparian areas are in unsatisfactory condition would have beneficial impacts on vegetation. Early season livestock grazing would result in regrowth of riparian vegetation which would improve riparian areas. A shortened grazing system, with no increase in livestock numbers, would also benefit upland vegetation by providing reduced utilization of the upland forage.

Grazing prior to the hot season to improve riparian resources has the potential to adversely impact native upland vegetation, as livestock use would occur during the plant's active growth and food storage phase. Although most plants are sensitive to grazing during this time period, studies have shown that bluebunch wheatgrass is extremely sensitive to grazing during active growth (Anderson, 1991). Grazing when upland forage grasses are in the boot stage has the potential to prevent substantial improvement. However, implementation of grazing systems designed to meet Idaho Standards for Rangeland Health and incorporating utilization standards would have a positive effect on the vegetative resource.

When any species or class of vegetation is allowed to dominate a large area, ecological diversity, forage production, and plant vigor will be adversely impacted. At the same time if one species or class of vegetation is eliminated or substantially reduced over a large area similar impacts could be projected. Prescribed burning and juniper woodcuts would be used to help meet the vegetation objective. In Alternative E, 57,500 acres of sagebrush/grass communities and 64,500 acres of juniper are identified for treatment. Short-term impacts (2-3 years) from prescribed burns and juniper harvesting will result in loss of diversity by reducing or eliminating the predominant species (sagebrush or juniper) at each site. Long-term effects would be beneficial by improving ecological diversity, ecological site condition, forage production, and plant vigor of these selected areas as understory vegetation communities recovered in the treated areas.

Beneficial impacts are projected for forest land biodiversity by retaining 32,600 acres of remnant Douglas-fir forests within the resource area.

Noxious weed control would have a slight beneficial effect on vegetative diversity by maintaining the integrity of native plant communities by reducing or eliminating undesirable species. Beneficial impacts, through noxious weed control, are also projected in those areas where OHV use occurs. OHV activity has the potential to remove vegetation and disperse weed seeds which then allows noxious weeds to become established at exponential rates.

Development of 74 livestock water projects would have site specific adverse impacts (short-term and long-term) to vegetation through increased grazing pressure and livestock concentration near available water. Developing springs and pipelines could also result in reduced water availability at spring sources or streams resulting in degraded riparian/wetland habitat. These adverse impacts could be mitigated by design features as well as adjusting livestock grazing to maintain the vegetative resources.

Construction of 24 miles of riparian/wetland exclosure fences would have beneficial impacts within these areas. By excluding livestock, these exclosure fences would allow improvement within these riparian/wetland areas. Construction of 24 miles of pasture division fences would have site specific negative impacts on the vegetation through physical damage caused by construction. However, off site vegetation would improve if the fences were used to adjust livestock grazing practices that are negatively impacting vegetation. Some adverse impacts are projected from these fences due to livestock trails that normally become established along fence lines and the potential for construction and maintenance roads along these fences.

Managing wild horse populations at appropriate management levels would not significantly affect the vegetative resource.

While adverse impacts to the vegetation resource are projected to increase in response to increasing OHMV use, managing the majority of the Resource Area with a limited designation should help to mitigate these impacts.

Mineral activities have the potential for adverse impacts on vegetation on a site-specific basis. Impacts would be in the form of short-term and long-term habitat loss at exploration and mining locations. Refer to the Stone Cabin Mine EIS for a detailed analysis of mining impacts.

Conclusion

Alternative E would have a beneficial impact on the vegetation resource due to adjustments in livestock grazing season-of-use, reducing livestock grazing during the hot season in those pastures where riparian areas are in unsatisfactory condition, adjusting grazing preference within the resource area from the initial stocking level of 135,116 AUMs to 105,899 AUMs at the end of twenty years, potential vegetation manipulations and management of wild horses at appropriate management levels.

Beneficial impacts are projected for upland vegetation in terms of improved plant vigor, increased frequency and cover of key perennial species, and upward vegetative trend. These impacts should result in some changes in ecological conditions, within 20 years. However, factors such as climate, soils, competition from other species, available sources of seed on site, livestock season-of-use, and livestock stocking levels will determine the amount of time needed to move from one seral stage to the next. Even with complete livestock removal succession can be extremely slow, sometimes requiring 20-40 years (Sandars and Voth 1983 and Tisdale, Hironaka, and Fosberg 1969).

Meeting the Objective

Objective VEGE 1: Improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas.

This objective would be met in Alternative E with the combination of a minimal level of vegetation treatment and changes in livestock management. The table below outlines the projected changes in ecological status for this alternative. These projected changes were based on the prescribed burns and juniper harvesting along with the reduced stocking levels and adjustments in livestock seasons-of-use proposed under this alternative.

	Baseline		20-Year Projection	
Seral Stage	Acres	Percent	Acres	Percent
Early seral	565,830	43%	528,290	41%
Mid seral	555,130	43%	498,419	38%
Late seral	137,797	11%	225,037	17%
PNC	2,203	<1%	6,964	1%
Treated	37,814	3%	40,064	3%
Total	1,298,774	100%	1,298,774	100%

[redacted]

Objective FORS 1: Manage Douglas-fir communities (about 36,200 acres) to emphasize forest health, vegetative diversity, wildlife and watershed values.

This alternative would meet the objective of retaining forestland biodiversity and recognizes the value of dead material for the overall ecological health of forest environments.

Objective FORS 2: Use juniper harvesting to help achieve a desired plant community.

Alternative E would meet the objective of achieving desired plant communities in the resource area by controlling juniper by harvest methods on 17,000 acres, by prescribed burning 47,500 acres of juniper dominated sites, and by burning an additional 57,500 acres of mostly sagebrush dominated sites being encroached upon by juniper within 20 years.

Riparian-Wetland Areas

Change Agents

Livestock grazing, mining activities, OHMV activities, livestock water developments and land tenure adjustments.

Impact Analysis

Implementation of intensive grazing systems would result in both short and long-term improvement in riparian condition. An estimated 90% of all BLM riparian miles throughout the resource area would achieve proper functioning and satisfactory conditions in 20 years in Alternative E if grazing were the only impact analyzed.

Adverse mining impacts on riparian areas would not increase in Alternative E. Nonpoint and point source impacts from historic mining operations would continue as described in Alternative A.

Adverse OHMV impacts on riparian areas would decrease in Alternative E as most of the resource area would have options designated to limit OHMV use if needed. Less than 1% of the resource area would be open with unrestricted use. OHMV activities would result in both upland and riparian area erosion, as described in Alternative A, as vegetative cover and streambank stability are decreased. Impacts would occur primarily along the Owyhee Front.

Development of livestock watering facilities would have the same type of adverse impact on riparian areas as described in Alternative A. The change from Alternative A in the number of stockwater developments includes an increase of 7 miles in pipelines.

Land tenure adjustments to consolidate public lands would generally benefit riparian resources. Newly acquired lands with riparian/aquatic values would usually be managed under special land use restrictions which benefit these values.

Conclusion

Implementation of grazing systems would result in improved riparian conditions. Changing utilization patterns, and controlling season of use combined with other management actions will result in proper functioning and satisfactory conditions on an estimated 85% of all BLM riparian miles over 20 years. Elimination of excessive hot-season grazing would allow riparian vegetation to establish and improve in composition, vigor, density and structure. The resulting riparian zone would be more efficient in its buffering and filtering function.

Meeting the Objectives

Objective RIPN 1: Maintain or improve riparian-wetland areas to attain proper functioning and satisfactory conditions. Riparian-wetland areas include streams, springs, seeps, and wetlands.

This objective would be met on an estimated 85% of all BLM riparian miles in Alternative E.

WILDLIFE HABITAT

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activity, OHMV activity, recreation use, ACEC and national river designations, wildlife habitat improvements, land tenure adjustments, and land use authorizations.

Impact Analysis

Development and implementation of grazing systems on all grazing allotments within ten years, limiting livestock utilization and disturbance of upland and riparian vegetation as appropriate to meet Idaho BLM Standards for Rangeland Health and other multiple resource objectives and the exclusion of livestock from 22,227 acres of public lands including most major canyon riparian habitats would result in the long term elimination of most grazing related impacts to wildlife habitats and populations and in significant improvement of most upland and riparian wildlife habitats. An estimated 85% of riparian habitats are projected to be in satisfactory condition after 20 years.

The types of impacts associated with livestock water developments and fences would be similar to those described under Alternative A, although they would only be developed as needed to implement approved grazing systems designed to achieve multiple resource objectives. There would be an estimated 140 fewer miles of fence constructed which would result in less habitat disturbance and impediment to big game movement. Overall, the impacts of livestock management project developments to wildlife are expected to be positive.

The acreage of vegetation treatments would be very similar to those proposed under Alternative A with the exception that there would be 8400 fewer acres proposed for burn and seed treatments. The combination of burning, woodcutting and burn and seed treatments would eliminate an estimated 45,500 acres of juniper woodland and another 31,500 acres of juniper invaded shrub habitats. See Chapter IV - Introduction - Changes in Ecological Status for assumptions used. Types of impacts would be similar to those projected for Alternative A but would be implemented as part of an approved AMP or comparable activity plan as a means of achieving desired resource objectives including enhancement of wildlife habitat. As a result, the long term impacts of this level of treatment is expected to be mostly beneficial, although localized, short term impacts to a diversity of wildlife species would be adverse due to the loss of vegetation structure, forage and cover associated with the woody vegetation component within the treatment area.

Impacts of mining related activities are projected to be the same as those projected for Alternative A. Mineral exploration and development would have an increasingly detrimental impact on most wildlife species and habitats as habitat is disturbed over the next 20 years. The extent of habitat impacts would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and usually, long-term habitat loss at exploration and mining locations, increased public access associated with exploration, assessment and mining roads and ways and indirect disturbance to wildlife within the vicinity of mines and exploration operations. See Map LOCM-2 for locatable mineral potential.

[redacted]

Under this alternative a total of approximately 192 acres of public land in the immediate vicinity of Hemingway Butte trail head will be designated as "Open" with no special OHMV restrictions, as apposed to 420,434 acres designated as "Open" under Alternative A; approximately 101,994 acres will be designated as "Closed" to OHMV use yearlong as apposed to 0 acres under Alternative A; and the remaining 1,217,805 acres will be designated as "Limited" with various types of restrictions to be imposed over time including numbers of vehicles, types of vehicles, season of use, use on existing or designated roads and trails, etc. in accordance with specific resource concerns and objectives. Restrictions could include seasonal closure of roads and trails and competitive use within crucial winter, breeding, nesting and other wildlife and wild horse habitats. For over snow vehicle use under this alternative, approximately 864,729 acres will be designated as "Open" without special restrictions, 304,302 acres will be designated as "Closed" and 90,749 acres will be designated as "Limited" from 12/15 through 3/31 to protect big game on crucial winter habitats, except as posted. This is compared to approximately 420,500 acres designated as "Open", 0 acres designated as "Closed" and the remainder of the resource area (approximately 899,100 acres) under some type of "Limited" designation under Alternative A. In the short term, management will remain the same in most areas with impacts being similar to those described for Alternative A. In the long term, while adverse impacts to wildlife habitats and populations are projected to continue to increase in response to increasing OHMV and over snow vehicle use levels and inadequate enforcement capabilities, the identification and on-the-ground delineation of limited use areas should help to substantially mitigate these impacts.

About 163 miles of national river designations including the four forks of the Owyhee River, Deep Creek, and portions of Nickel Creek and Current Creek would result in strict limitations on vehicle travel and withdrawal of these reaches from mineral entry. Potential impacts to wildlife or wildlife habitat associated with these activities would be avoided and both short-term and long-term impacts are projected to be beneficial.

Other recreation program management actions proposed in this alternative include development and implementation of management plans for ten Special Recreation Management Areas, upgrading, reconstructing and/or modifying recreation facilities at seven recreation sites and construction of other recreation sites including two foot and two equestrian trailhead systems are likely to result in increased public use at, and in the general vicinity of, each of these sites. Impacts would be similar to those discussed under Alternative A except that four additional recreational facilities are proposed under this alternative which would expand identified impacts to these additional sites. The over impact of implementation of these recreation program actions is expected to be slightly negative.

Impacts of equestrian events and guiding and outfitting services would be similar to those identified in Alternative A. Short-term and long-term impacts are projected to be slightly adverse and projected to increase over the next 20 years.

Under this alternative a total of 167,372 acres of public land would be designated as ACECs. This would include the retention or expansion of four existing ACECs and ONAs and the addition of nine others and would generally benefit the majority of wildlife species by restricting or prohibiting a wide range surface disturbing activities in various combinations. Although some restrictions could limit management options that could benefit some species (i.e., some vegetation treatments, exclosure fencing, etc.), the overall impact is expected to be positive.

The impacts of wildlife project and cooperative habitat/farming developments would be the same as described for Alternative A. Short-term and long-term impacts of these actions would be beneficial.

Impacts of land tenure adjustments and Land Use Authorizations would be the same as those projected for Alternative A.

[redacted]

Conclusion

The overall impact of Alternative E is projected to be beneficial for most wildlife habitats and populations primarily based upon the development and implementation of grazing systems on all grazing allotments within ten years and limiting livestock utilization and disturbance of upland and riparian vegetation as appropriate to meet resource objectives. This should result in the long term elimination of most significant grazing related impacts to wildlife habitats and populations and improvement of most upland and riparian wildlife habitats. Riparian areas, and the large diversity of wildlife species dependant upon them, should experience the most substantial and rapid benefits as grazing practices are implemented which, as a minimum, must insure compliance with Idaho BLM Standards for Rangeland Health and Guidelines for Livestock Grazing management and State of Idaho BMPs. Other management actions that would significantly benefit wildlife include some vegetation treatments, more restrictive OHMV management, ACEC, SRMA and national river designations, livestock exclosures, wildlife habitat improvement projects and cooperative habitat/farming agreements. Adverse impacts would include most mining related activities, increasing OHMV and other recreational activities and facility development, some vegetation treatments and most land use authorizations.

Meeting the Objectives

Objective WDLF 1: Maintain or enhance the condition, abundance, structural stage and distribution of plant communities and special habitat features required to support a high diversity and desired populations of wildlife inhabiting public lands within the Owyhee Resource Area.

This objective would be met primarily in response to implementation of grazing plans and systems that address site specific resource objectives including conformance with Idaho BLM Standards for Rangeland Health and Idaho BMPs; livestock exclosures, ACEC, SRMA, national river and "limited use" OHMV designations that protect selected areas from various types and degrees of use; and vegetation treatments that facilitate limited and controlled manipulation of vegetation to enhance wildlife habitat and other resource values.

Fishery Habitat

Change Agents

Livestock grazing, mining activities, OHMV activities and prescribed burning.

Impact Analysis

Implementation of intensive livestock grazing systems and conversion to winter grazing within the Snake River Plains would result in both short and long-term improvement in riparian condition. Over 20 years, as riparian condition improves, an estimated 90% of all BLM stream miles throughout the resource area would achieve proper functioning and satisfactory conditions if grazing were the only impact analyzed. Improvement in riparian vegetation condition and streambank stability, as described in Alternative A, would result in long-term improvement in fish habitat and aquatic species biodiversity.

Point and nonpoint source mining impacts on fish communities and biodiversity would not increase in Alternative E. The major impacts would be sedimentation and acid rock drainage as described in Alternative A.

Adverse OHMV impacts on fish communities and aquatic biodiversity would decrease in Alternative E as most of the resource area would have options designated to limit OHMV use if needed. Less than 1% of the resource area acres would be open to unrestricted OHMV use. OHMV activities would result in a loss of ground cover which would lead to increased upland erosion and fine sediment deposition in streams as described in Alternative A. Adverse impacts would occur primarily along the Owyhee Front.

Adverse impacts on fisheries habitat from prescribed burns would decrease in Alternative E. Prescribed burns would be limited to a maximum of 15,000 acres annually with about 105,000 acres burned over the next 20 years. The primary impact on aquatic communities would be increased sediment as described in Alternative A.

Land tenure adjustments to consolidate public lands would generally benefit aquatic resource values. Newly acquired lands with aquatic values would be managed with special land use restrictions which benefit these values.

Conclusion

The effects of Alternative E on native fish communities and aquatic biodiversity would be beneficial, resulting in satisfactory conditions on an estimated 85% of all BLM stream miles. The condition of aquatic species habitat would improve over both the short term and long term. Elimination of excessive hot-season grazing would improve vegetative cover, structure, and streambank stability resulting in satisfactory conditions.

Meeting the Objectives

Objective FISH 1: Improve or maintain perennial stream/riparian areas to attain satisfactory conditions to support native fish.

This objective would be met on an estimated 85% of all BLM stream miles in Alternative E.

Objective FISH 2: Improve reservoir fisheries when appropriate, in consultation with State agencies and adjacent landowners.

This objective would be fully met on the majority of reservoirs in Alternative E.

Special Status Species

Special Status Plants

Change Agents

OHMV activities, livestock grazing, mining activities, vegetation treatments, livestock water developments, fencing, recreation use, land use authorizations, land tenure adjustments, ACEC designations and national river designations.

Impact Analysis

Under this alternative, approximately 698,363 acres would be "Limited" to designated roads and trails, 519,442 acres would be limited to existing roads and trails, 101,994 acres would be designated as "Closed" to OHMV use year long, and 192 acres in the immediate vicinity of the existing Hemingway Butte trailhead would be designated as "Open". This compares to 0 acres designated as "Closed" and 420,434 acres designated as "Open" under Alternative A. Until designated routes are physically signed, short-term impacts over much of the resource area are expected to remain the same as described under Alternative A. However, long-term impacts to special status plants are expected to be beneficial, in spite of a projected increase in OHMV activity of 74% over the next twenty years. Where appropriate, areas with special designations such as ACECs, ONAs, and RNAs would have routes designated subsequent to activity plan development and implementation. Consequently, short-term adverse impacts in these areas would be minimal to nonexistent. Limiting use to designated routes and enforcement of these designations will greatly reduce the potential for conflict with special status plants that can occur from cross country travel. However, at some locations, fencing to protect a population may still be required. The much smaller "Open" use area under this alternative will also limit the opportunity for adverse impacts to special status plants. The proposed site has already experienced a great deal of habitat degradation due to many years of concentrated OHMV activity. Special status plants are no longer believed to occur in this area.

Development and implementation of grazing systems on all grazing allotments within ten years to meet multiple use resource objectives and/or the Standards for Rangeland Health would have a long-term beneficial impact on special status plants. Significant improvement of most upland and riparian habitats, exclusion from livestock on 22,227 acres, and the elimination of grazing related impacts are expected to benefit most species. Stocking levels necessary to meet these objectives are projected to be approximately 112,649 AUMs in 5 years and 105,899 AUMs in 10 years, whereas the current active grazing preference for livestock is 135,116 AUMs. Riparian habitat improvements would specifically benefit Hall's rush, American wood sage, and rattlesnake stickseed. A change to winter grazing in salt desert shrub habitats would benefit the numerous special status plants that occur within the Snake River geographic reference area. The impacts of livestock associated range projects are discussed separately below.

Mining activities would have the same type of long-term adverse impacts on special status plants as projected for Alternative A, but impacts would occur on fewer acres due to the additional areas that would be restricted or closed to mining activities in Alternative E. For example, 21,079 additional acres would be closed to mineral material sales in Alternative E compared to Alternative A, and 17,717 additional acres would be withdrawn or recommended for withdrawal from mineral entry. These restricted or closed areas are within the boundaries of special designation areas including SRMAs, ACECs, RNAs and ONAs. Species that could potentially benefit in Alternative E include smooth stickleaf, Malheur yellow phacelia, dimeresia, Cusick's false yarrow, Simpson's hedgehog cactus, and barren milkvetch. However, if mineral withdrawals are not approved, adverse impacts to these species would continue to occur, in spite of special designation. Adverse impacts would primarily be in the form of habitat loss and direct destruction of individuals and populations, with the extent of impacts generally determined by the amount of activity. Impacts are projected to be most severe within the Snake River and northern tip of the Jordan Creek geographic reference areas, where the geology is represented by a variety of limited and localized materials (i.e., zeolite, bentonite, diatomaceous earth, oolitic limestone). These minerals often comprise the habitat of special status plant species. Few acres in these two geographic reference areas hold any form of special designation. Additional species that could be adversely affected by locatable mineral activity in particular include Owyhee clover, bienniel princes plume, Greeley's wavewing, and matted cowpie buckwheat.

In Alternative E, 64,500 acres of juniper are identified for removal compared with 72,700 acres in Alternative A. The acreage identified for cutting (17,000) is the same for all alternatives except Alternative B. The acreage recommended for burning would be decreased by 8,200 in Alternative E to a total of 47,500. Because only four of the 31 special status plants known from the resource area are sometimes associated with the western juniper vegetation type (Osgood Mountains milkvetch, least phacelia, Simpson's hedgehog cactus, dimeresia), most species would be unaffected by juniper removal. The types of impacts on these four species would be similar to those projected for Alternative A, however the number of acres recommended for treatment and therefore potential adverse impacts on special status plants is slightly lower.

Sagebrush treatment is identified for a total of 57,500 acres in Alternative E, 8,400 fewer acres than in Alternative A. These treatments include 52,500 acres of burning and 5,000 acres of burning and seeding. Impacts to special status plants would be similar to those described in Alternative A. Plant species that could be impacted include Osgood Mountains milkvetch, inch-high lupine, least phacelia, and possibly Simpson's hedgehog cactus and Trout Creek milkvetch. Impacts could be beneficial or adverse, depending on the species and type of treatment. Prescribed burns with no seeding would probably have a long-term beneficial impact, as long as post-burn invasion by exotic plants (i.e. cheatgrass) does not occur. It is projected that prescribed burning followed by seeding would have a long-term adverse impact on special status plant species. Areas of known populations would be avoided but potential habitat could be altered.

Livestock water development impacts are projected to be slightly greater than those described in Alternative A. Livestock reservoirs (19), pipeline miles and associated troughs (10), and spring developments (45) could result in long-term indirect adverse impacts on some special status plant species, primarily by moving livestock into areas that previously received little use. Due to the seven additional pipeline miles identified in Alternative E, additional adverse impacts could occur. While direct impacts on special status plants depend upon exact project locations, water development impacts are generally projected to be minimal since site examinations would be conducted prior to project construction. In some cases, special status plants could benefit by improved dispersion of livestock, when the development facilitates the movement of livestock away from rare plant populations.

The impact of fencing on special status plants would be similar to those discussed in Alternative A. However, the risk of causing indirect adverse pressures on special status plants is projected to be less than in Alternative A due to the 27 fewer miles of pasture fence and 113 fewer miles of exclosure fence proposed. Fence construction would be adverse if it results in livestock concentrating within special status species habitat. In most cases direct adverse impacts would be avoided by conducting field examinations prior to construction. Fencing would benefit special status plants when its placement improves livestock distribution and relieves pressure on their habitat. Under some circumstances, fencing might be required to protect a population and ensure its continued persistence on a site.

Development and expansion of recreation sites and equestrian and hiking trailheads prescribed in Alternative E would increase use and associated human disturbance at these and adjacent areas. Impacts on special status plants would be similar to those in Alternative A except that the overall impacts would cover a larger land area (119,555 additional SRMA acres in Alternative E). The potential for special status plants to be adversely impacted at trailheads and recreation sites is low because of the field exam procedure prior to any development. However, long-term adverse impacts on adjacent unsurveyed areas are projected as increased use would cause deterioration of habitat and result in the spread of exotic plants into native habitat, including the habitat of special status plants. Long-term impacts to special status plants are expected to be more adverse than projected under Alternative A.

The overall impact from land use authorizations on special status plants would be the same as for Alternative A. Prior to approval and issuance of any right-of-way, lease, or permit, site examinations for special status plants would be conducted. While adverse impacts could occur if examinations were done at an inappropriate time of year, generally there would be no direct impact. However, because land use authorizations could result in substantial surface disturbance, special status plants could be indirectly impacted by fragmentation of the overall habitat and the introduction of exotic species into disturbed areas.

Land tenure adjustments would have a slightly more beneficial impact on special status plants than those projected for Alternative A. Adjustments would generally be beneficial due to the Bureau's policy on disposal of special status species. Most adjustments result in acquisition of high quality habitat or other significant biological resources, including special status species. Many of these adjustments also result in the consolidation of public ownership in ACECs, WSAs, and national river corridors, where special status species management capabilities are more favorable.

Designation of 13 areas as ACECs, RNAs and ONAs would have a long-term, highly beneficial impact on special status plant species, with numerous plant populations given special management protection within the boundaries of the designated areas. Three of the areas (Coal Mine Basin, McBride Creek, The Badlands) were nominated primarily for their special status plant populations. Several of the other areas (Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Habitat Area, North Fork Juniper Woodland) also provide habitat for additional plant species of concern.

The impact of 163 miles of national river designations is generally projected to be slightly more beneficial than Alternative A. Designation would result in withdrawal of these reaches from mineral entry and avoidance of potential impacts associated with mining. It would also result in vehicle access limitations and commercial recreation permitting, limiting impacts associated with these actions. Because visitor use is projected to increase regardless of designation, several special status plants found within the river canyons and adjacent areas could be adversely impacted, primarily by trampling in areas of concentrated use, such as campsites. These include rattlesnake stickseed, dimeresia, inch-high lupine, American wood sage, and Simpson's hedgehog cactus. While long-term adverse impacts on these five species could occur, the overall long-term projection for Alternative E is beneficial for special status plants.

Conclusion

The overall impact of Alternative E on special status plants is projected to be beneficial. Management actions that would benefit special status plants include the more restrictive OHMV management strategies; some land tenure adjustments; designation of 13 areas as ACECs or ONAs; implementation of grazing systems in all allotments to meet Standards for Rangeland Health; and national river designations. Adverse impacts would continue as a result of mining related activities, increasing levels of OHMV activity, increased recreational use, inappropriate placement of water developments, and potentially some vegetation treatments such as sagebrush removal.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

As discussed in Alternative A, the limited availability of baseline inventory and monitoring data for many special status plants makes it difficult to accurately project impacts from the management actions identified in Alternative E. While the identified management in Alternative E would have a beneficial impact overall and would facilitate meeting the objective for some special status plants, increasing OHMV activity (74% over the next twenty years) and recreational use and the unpredictability associated with mining activities could preclude meeting the objective for some plant species, particularly in the Snake River and northern tip of the Jordan Creek geographic reference areas.

Special Status Animals

Change Agents

Livestock grazing, livestock water developments, fencing, vegetation treatments, mining activity, OHMV activity, recreation use, ACEC and national river designations, wildlife habitat improvements, land tenure adjustments, land use authorizations, implementation of recovery plans, conservation agreements, conservation strategies and other species management plans.

Impact Analysis

Development and implementation of grazing systems on all grazing allotments within ten years, limiting livestock utilization and disturbance of upland and riparian vegetation as appropriate to meet Idaho BLM Standards for Rangeland Health and other multiple resource objectives and the exclusion of livestock from 22,227 acres of public lands including most major canyon riparian habitats would result in the long term improvement of most upland and riparian habitats for most special status species.

The types of impacts associated with livestock water developments and fences would be similar to those described under Alternative A, although they would only be developed as needed to implement approved grazing systems designed to achieve multiple resource objectives. There would be an estimated 140 fewer miles of fence constructed which would result in less habitat disturbance. Although localized adverse impacts would occur, the overall, long term impact of livestock project development to most special status species are expected to be positive.

The acreage of vegetation treatments would be very similar to those proposed under Alternative A with the exception that there would be 8,400 fewer acres proposed for burn and seed treatments and 8,200 fewer acres of proposed juniper treatment . The combination of burning and woodcutting would result in the loss of an estimated 45,500 acres of juniper woodland, and estimated 34,500 acres of juniper invaded and other shrub habitats. Types of impacts would be similar to those projected for Alternative A but treatments would be implemented as a means of achieving desired resource objectives including enhancement of special status species habitat. As a result, the long term impacts of this level of treatment is expected to be mostly beneficial, although localized, short term impacts to a diversity of species including pygmy rabbit, sage grouse and a number of special status neotropical migrants would be adverse due to the loss of vegetation structure, forage and cover associated with the woody vegetation component within the treatment area.

Impacts of mining related activities are projected to be the same as those projected for Alternative A. Mineral exploration and development would have an increasingly detrimental impact on most special status species and habitats as habitat is disturbed over the next 20 years. The extent of habitat impacts would be determined by the amount of activity, advances in mining and mitigation techniques, location and other factors. Impacts would be in the form of short-term and usually, long-term habitat loss at exploration and mining locations, increased public access associated with exploration, assessment and mining roads and ways and indirect disturbance to special status species within the vicinity of mines and exploration operations. See Map LOCM-2 for locatable mineral potential.

Under this alternative a total of approximately 192 acres of public land in the immediate vicinity of Hemingway Butte trail head will be designated as "Open" with no special OHMV restrictions, as apposed to 420,434 acres designated as "Open" under Alternative A; approximately 101,994 acres will be designated as "Closed" to OHMV use yearlong as apposed to 0 acres under Alternative A; and the remaining 1,217,805 acres will be designated as "Limited" with various types of restrictions to be imposed over time including numbers of vehicles, types of vehicles, season of use, use on existing or designated roads

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and trails, etc. in accordance with specific resource concerns and objectives. Restrictions could include seasonal closure of roads and trails and competitive use within crucial winter, breeding, nesting and other special status species, other wildlife and wild horse habitats. For over snow vehicle use under this alternative, approximately 846,729 acres will be designated as "Open" without special restrictions, approximately 340,302 acres will be designated as "Closed" and approximately 90,749 acres will be designated as "Limited" from 12/15 through 3/31, except as posted. This is compared to approximately 420,500 acres designated as "Open", 0 acres designated as "Closed" and the remainder of the resource area (approximately 899,100 acres) under some type of "Limited" designation under Alternative A. In the short term, management will remain the same in most areas with impacts being similar to those described for Alternative A. In the long term, while adverse impacts to special status species habitats and populations are projected to continue to increase in response to increasing OHMV and over snow vehicle use levels and inadequate enforcement capabilities, the identification and on-the-ground delineation of limited use and closed areas should help to substantially mitigate these impacts.

About 163 miles of national river designations including the four forks of the Owyhee River, Deep Creek, and portions of Nickel Creek and Current Creek would result in strict limitations on vehicle travel and withdrawal of these reaches from mineral entry. Potential impacts to special status species populations or habitat associated with these activities would be avoided and both short-term and long-term impacts are projected to be beneficial.

Other recreation program management actions proposed in this alternative include development and implementation of management plans for ten Special Recreation Management Areas, upgrading, reconstructing and/or modifying recreation facilities at seven recreation sites and construction of other recreation sites including two foot and two equestrian trailhead systems. The level of public use is likely to increase at, and in the general vicinity of, each of these sites. Impacts would be similar to those discussed Under Alternative A except that four additional recreational facilities are proposed under this alternative which would expand identified impacts to these additional sites. The overall impact of implementation of these recreation program actions is expected to be slightly negative.

Impacts of equestrian events and guiding and outfitting services would be similar to those identified in Alternative A. Short-term and long-term impacts are projected to be slightly adverse and projected to increase over the next 20 years.

Under this alternative a total of 167,372 acres of public land would be designated as ACECs and ONAs. This would include the retention or expansion of four existing ACECs and ONAs and the addition of nine others and would generally benefit the majority of special status species by restricting or prohibiting a wide range surface disturbing activities in various combinations. Although some restrictions could limit management options that could benefit some species (i.e., some vegetation treatments, exclosure fencing, etc.), the overall impact is expected to be positive.

The short-term and long-term impacts of wildlife waters, nesting islands and structures, exclosures, cooperative habitat/farming developments and roost tree plantings would be would either be positive or have no significant impact depending upon the species.

Impacts of land tenure adjustments are expected to be mostly positive and those of Land Use Authorizations mostly negative and as described for Alternative A.

The implementation of recovery plans, conservation agreements and strategies and other special status species management plans, such as the 1997 Sage Grouse Management Plan, would definitely have a positive impact on target species and habitats and would be expected to benefit most other special status species as well since most place restrictions on impacting uses and/or call for maintaining or improving specific habitat components and features. Conflicting management prescriptions for species with overlapping ranges could occur but is expected to be rare and would normally be resolved during the planning process.

Conclusion

The overall impact of Alternative E is projected to be beneficial for most special status species habitats and populations primarily based upon the development and implementation of grazing systems on all grazing allotments within ten years and limiting livestock utilization and disturbance of upland and riparian vegetation as appropriate to meet resource objectives. This should result in the long term elimination of most significant grazing related impacts to special status species and improvement of most upland and riparian special status species habitats. Riparian areas, and the diversity of special status species dependant upon them, should experience the most substantial and rapid benefits as grazing practices are implemented which, as a minimum, must insure compliance with Idaho BLM Standards for Rangeland Health and Guidelines for Livestock Grazing and state of Idaho BMPs. Other management actions that would benefit special status species include some vegetation treatments, more restrictive OHMV management, ACEC, SRMA and national river designations, livestock exclosures, habitat improvement projects, cooperative habitat/farming agreements and implementation of recovery plans, conservation agreements and strategies and other multi-agency species management plans. Adverse impacts would include most mining related activities, increasing OHMV and other recreational activities and facility development, some vegetation treatments for some species and most land use authorizations.

Meeting the Objectives

Objective SPSS 1: Manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act of 1973, as amended.

This objective should be met for the majority of special status species over the long term, primarily in response to implementation of grazing plans and systems that address site specific resource objectives including conformance with Idaho BLM Standards for Rangeland Health and Idaho BMPs; livestock exclosures, ACEC, SRMA and national river designations that protect selected areas from various types and degrees of use; more restrictive OHMV management; vegetation treatments that facilitate limited and controlled manipulation of vegetation to enhance special status species habitat and other resource values and implementation of recovery plans, conservation agreements and other multi-agency species management plans. However, until site specific activity plans can be developed and implemented, suspected adverse impacts of livestock grazing, OHMV use and various other land use activities are expected to continue for many special status species habitats and populations.

Wild Horse Management

Change Agents

OHMV activities, recreation use, mining activities, fencing, livestock water developments, and livestock grazing.

Impact Analysis

There is a projected increase in general recreation use within the resource area with the majority occurring along the Owyhee Front. Retention of the Owyhee Front SRMA would result in a continued concentration of recreation use on approximately 86,953 acres of the Hardtrigger and Black Mountain HMAs. The Rabbit Creek and Hemingway Butte trailheads would remain. The majority of the HMAs would be under a limited use designation and an area of approximately 140 acres near the Hemingway Butte trailhead would have an open designation. Designated routes would be identified and seasonal closures would be implemented in the HMAs. Seasonal closures would be from March 1 through June 30 to protect the wild horses during the foaling season. These closures could effect both competitive and casual uses. Negative impacts are projected on the wild horses in the short term until implementation of route designations and seasonal closures occurs. Recreational use will be monitored and compatible uses would continue. Route designations and seasonal use areas could change over time. Successful implementation of route designation and seasonal closures are dependent on active and cooperative participation by the various public interest groups working with the BLM.

The HMAs would remain open for exploration and development of locatable minerals. Exploration and development of locatable mineral resources in HMAs could have detrimental impacts on wild horses if habitat is disturbed over the life of the plan. The extent of habitat impact would be determined by the location and amount of activity, advances in mining and mitigation techniques and other factors. Impacts would be short-term and long-term habitat loss at exploration and mining locations. Increased public access associated with exploration and mining roads could cause direct disturbance which could potentially impact wild horses. See Map LOCM-2 for locatable mineral potential. Should locatable mineral exploration activities increase to the point of causing adverse impacts, mitigating measures would be taken to reduce impacts. Under this alternative there would be a yearlong surface occupancy constraint for fluid mineral activities. On saleable minerals, (ornamental stone) some pit locations could have a seasonal closure between March 1 and June 30.

Fences within the HMAs would not be beneficial to wild horses. Gates along fences, if not opened in a timely manner after the authorized domestic livestock grazing period, would reduce range accessibility and free-roaming behavior. If habitat or riparian exclosure fences are constructed, the projects would be designed to not impact water availability and free-roaming behavior of the wild horses.

Water development will be considered carefully so as not to increase forage competition between domestic livestock and wild horses.

Grazing systems for domestic livestock could modify wild horse distribution and free-roaming behavior. Grazing systems and scheduled closing of gates to control livestock movement confines wild horses to particular allotments or pastures over the course of the grazing season, which results in short-term impacts. Over the next 20 years there could be a reduction in livestock preference in the Black Mountain and Hardtrigger HMAs. The Sands Basin HMA could see a slight increase in livestock preference after combining some allotments outside the HMA to develop a new grazing system. Low elevation ranges within the Black Mountain and Hardtrigger HMAs could have a change in season-of-use to winter-use to meet the Idaho Standards for Rangeland Health. Winter cattle grazing within historic wild horse winter ranges could prevent seasonal migration and reduce forage availability when cattle are present. During years of low forage production or high annual utilization, short-term impacts could occur.

[redacted]

Conclusion

Overall, it is projected that Alternative E would have beneficial impacts on the wild horses. Wild horses would be managed within all areas of the Sands Basin, Hardtrigger and Black Mountain Herd Areas, except for the Sage Hen pasture of allotment 0651 and the Tyson FFR allotment 0616.

Meeting the Objectives

Objective WHRS1: Maintain wild and free-roaming horses in the Owyhee Wild Horse Herd Management Areas (HMAs) at appropriate management levels (AML) within a thriving natural ecological balance.

In Alternative E, with the exception of potential impacts associated with mining activities and changing season-of-use to winter grazing for livestock, it is projected that the wild horses would not be adversely impacted over the long term. Short-term impacts are likely from recreational uses in the HMAs until implementation of designated routes and seasonal closures. Existing fences would be modified to reduce the current impacts and new fences would be designed to not adversely impact normal distribution and free-roaming behavior of the wild horses. The appropriate management level, forage allocation and excess wild horses will be determined from components of monitoring (See Appendix MONT-1). Management of the wild horse program would be improved because of interpretative signing, public awareness, and coordination with affected parties.

Impacts on General Health and Free Roaming Opportunity

Components	Baseline	Short-Term	Long-Term
Forage Allocation	2,329 AUMs	2,304 AUMs	2,304 AUMs
Viability Level	118 head	118 head	118 head
Estimated Herd Size	178 head	AML	AML
General Health	0	0	0

[redacted]

Free Roaming Opportunity

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	0
0521	Seeding	2	0	0	0
0521	Bridge Creek	3	0	0	0
0522	Rats Nest	1	0	0	0
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	-	-
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	-	-
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	-	0	0
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	0	-	0
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	-	0
0517	West Rabbit (S)	2	-	-	0
0517	Kane Spring	3	0	0	0
0517	Moores Creek	6	-	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

Water Availability for Wild Horses in HMAs on a Year Long Basis

[redacted]

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	0
0521	Seeding	2	0	0	0
0521	Bridge Creek	3	-	-	0
0522	Rats Nest	1	0	0	0
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	-	0
0516	Opalene	3	0	0	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	-	-
0508	Wilson	1	0	0	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	3	0	0	0
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	-	-	0
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	-	0
0517	West Rabbit (S)	2	0	0	0
0517	Kane Spring	3	0	0	0
0517	Moores Creek	6	0	0	0
0517	South Rabbit	5	0	0	0
0651	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

[redacted]

Public Interaction/Contact with Wild Horses Resulting in Disturbance

Allot #	Pasture Name	#	Baseline	Short-Term	Long-Term
0521	Barrel Spring	4	0	0	0
0521	Seeding	2	0	0	0
0521	Bridge Creek	3	0	0	0
0522	Rats Nest	1	-	-	0
0556	Shares Basin	1	0	0	0
0513	Elephant Butte	3	-	-	0
0516	Opalene	3	-	-	0
0516	Hardtrigger	4	0	0	0
0516	Piute	5	0	0	0
0516	Hemingway	1	-	-	0
0508	Wilson	1	-	-	0
0508	Soldiers Cap	2	0	0	0
0508	Salmon Butte	2	0	0	0
0508	Whiskey Hill	4	N/A	0	0
0508	Alkali	5	N/A	0	0
0651	North Rabbit	1	-	-	0
0651	Little Kane	2	0	0	0
0651	State	4	0	0	0
0517	West Rabbit (N)	1	-	-	0
0517	West Rabbit (S)	2	-	-	0
0517	Kane Spring	3	+	0	0
0517	Moores Creek	6	+	0	0
0517	South Rabbit	5	+	0	0
065160	Sage Hen	7	N/A	N/A	N/A
0616	Tyson FFR	1	N/A	N/A	N/A

0 = Potential Impact
+ = Beneficial Impact
- = Adverse Impact
N/A = wild horses not managed for in this area

Livestock Grazing Management

Change Agents

Riparian management practices, vegetation treatments, range improvements, winter grazing, wild horse management, interim management policy for wilderness study areas, national river designations, ACEC designations, SRMA and mining activities.

Impact Analysis

Implementation of management actions under this alternative would have a substantial impact on the current grazing program. The primary changes in the grazing program would be implementation of grazing systems to meet multiple use objectives and Standards for Rangeland Health by adjusting livestock grazing seasons-of-use and stocking levels. Active grazing preference is currently 135,116 AUMs with a 10 year average actual use (1988-1997) of 96,676 AUMs. Alternative E would result in a 5-year active preference of 112,649 and a 10-year and 20-year active preference of 105,899 AUMs. See Table LVST-E for projected active preference by allotment. Forage allocation would also include 2,304 AUMs for wild horses and 2,673 AUMs for wildlife.

The initial allocation of 2,673 AUMs to wildlife and 2,304 AUMs to wild horses is the current situation so there would be no impact to livestock grazing. Any forage allocation adjustments made in wild horse herd areas because of negative impacts to the range would be based upon the species creating the problem first, and if that is not discernible, then to livestock. This is the current situation and there would be no additional impacts on livestock grazing.

Table LVST- E shows the average actual use (1988-1997), active preference and proposed grazing systems and levels. It is expected that average actual use will decline during implementation of alternative E. However, it is dependent upon many factors and it is difficult to determine an accurate figure. Stocking at levels below active preference is an acceptable practice which is encouraged by BLM. It can result in lighter use levels, a stable operation and reduced areas of overuse during unfavorable periods. It is very likely that the gap between average actual use and total active preference will significantly narrow as livestock grazing reductions are implemented, and, the average actual use would in all likelihood fall to levels below the current average of 96,694 AUMs at least in the short-term.

The greatest impacts of Alternative E on livestock grazing management are from adjustments to current grazing practices in order to meet the needs of riparian associated resources and the Idaho Standards for Rangeland Health (See Appendix LVST-2). Changes to grazing practices include: major changes in seasons-of-use; retention of current seasons-of-use but reductions in numbers of livestock to reduce grazing intensities; creation of riparian pastures which would be grazed early to allow the riparian vegetation sufficient time to regrow after livestock removal; or if sufficient pastures currently exist or may be created, then rotational grazing may be developed or adjusted to meet multiple use objectives. Other management actions such as complete rest for 5 years may also be required. Approximately 20,000 AUMs would not be permitted in order to reduce grazing impacts on riparian zones. Some of these AUMs are AUMs which are currently reflected in the average actual use level figures.

An additional negative impact on grazing management would result from implementing grazing systems to meet multiple use objectives associated with uplands and to meet associated Idaho Standards for Rangeland Health. This includes those upland areas that are currently being grazed nearly every spring. Implementing grazing systems for uplands includes changes in seasons-of-use and adjusting livestock stocking levels. This would result in an additional reduction of approximately 8,000 AUMs.

Limiting utilization of key upland forage species by livestock to 50 percent is a continuation of the existing standards. This would not impact the livestock grazing program.

Incorporating a lighter use on those allotments which fall below the 3500 feet elevation level could result in a negative impact on the grazing program for those allotments. Some other areas or allotments may also need lighter use levels. The requirement to graze at lighter use levels would not result in any additional grazing reductions than those previously discussed which would be necessary to meet riparian and upland objectives and the Idaho Standards for Rangeland Health (CFR 4180).

Construction of range developments including vegetative manipulation would have a positive impact on livestock grazing. Vegetative manipulation would increase forage production and, when followed by improved post fire livestock management, would allow the vegetation to move toward PNC. Approximately 122,000 acres of western juniper and big sagebrush being encroached upon by western juniper would be manipulated resulting in short term temporary reductions in permitted use due to pre-burn and post-burn rest. Long term forage production would increase approximately 4,650 AUMs.

	Prescribed Burn	Prescribed Burn & Seed	Juniper Harvest	Total
Acres	100,000	5,000	17,000	122,000
Short Term Loss (AUMs)	1,000	250	170	1,420
Long Term Gain (AUMs)	3,333	750	567	4,650

Restrictions on rangeland developments in wild horse HMAs and SRMAs may limit flexibility in livestock grazing management. This could have a negative affect on the livestock grazing program. Interim management policy for wilderness study areas restricts range project developments. Rangeland developments may be constructed within WSAs but only if carefully designed to maintain or enhance the wilderness values. Many of the potential ACECs restrict the placement of salt, fencing, juniper removal and water developments. These restrictions would not have a significant impact on the grazing program.

Areas in the resource area where livestock grazing is not currently permitted include the headwaters of some streams and the collection and overflow areas of some spring developments (see Table LVST - 5 for a list of those areas greater than 10 acres in size), numerous isolated parcels which are generally located in the northern portion of the resource area, North Fork Campground and lower North Fork Owyhee River and Crutcher Crossing allotment (0593). Continued exclusion of livestock grazing from these areas would have no impact on the livestock grazing program.

Under Alternative E, livestock grazing would not be permitted in Squaw Creek RNA/ACEC, the canyon portions of the Jump Creek Canyon ACEC, and portions of the McBride Creek RNA/ACEC. This would have a slight negative impact on the livestock grazing program but would not result in any loss of active grazing preference. Additionally, approximately 80 acres of habitat for Mulford's milkvetch, a special status plant species, would be excluded from livestock grazing. This would not result in any loss of active grazing preference

Livestock would also be excluded from some portions of the steep rocky hillsides and large canyons of Deep Creek, the Owyhee River, South Fork of the Owyhee River and Red Canyon Creek. Due to access problems, minimal livestock grazing currently occurs on most of these areas. Where livestock are using these areas they concentrate in areas adjacent to the river or stream bottom. It is not realistic to expect to achieve reasonable management goals on in these areas with steep rocky hillsides divided by side drainages, rock outcrops and talus slopes. The Nickel Creek Allotment (0548) allotment boundary was moved to the top of the rim above Deep Creek in 1998. The proposed exclusion of livestock along Deep

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Creek for Alternative E would not impact the current grazing program. Exclusion of livestock from the additional areas would have a slight negative impact on the livestock grazing program but would not result in any loss of active grazing preference. Exclusion could be accomplished with the use of rimrock and a few short gap fences.

When livestock grazing preference is relinquished , utilizing this carrying capacity to resolve grazing concerns throughout the resource area would add flexibility to the grazing management program and would be beneficial to the grazing program.

Restricting the class of livestock to cattle for areas which lie south of the Mud Flat Road and within nine miles of the Castle Creek and Reynolds Creek bighorn sheep herds would not impact the current grazing program.

As a result of impacts associated with the Stone Cabin mine there would be a potential loss of 112 AUMs of livestock forage. Reclamation efforts should return all but 15 AUMs. This would have a slight negative impact on the livestock grazing program.

Conclusion

Most of the resource concerns identified in the allotment summaries (Appendix LVST-1) would be resolved in the next 20 years. At the end of 20 years more than 90,000 acres of vegetation would improve to late seral. Riparian and fish objectives would be met on 85% of the stream miles. Livestock use (active preference) would be 105,899 AUMs at the end of 20 years, a 22% decrease from current active preference.

Meeting the Objectives

Objective LVST 1: Provide for a sustained level of livestock use compatible with meeting other resource objectives. Resolve issues associated with livestock grazing identified in the allotment management summary (Appendix LVST-1).

This objective would be met in Alternative E because resource concerns that were identified would be resolved.

Locatable Minerals

Change Agents

Mineral withdrawals for wilderness areas, corridors along nationally designated rivers, certain recreation management areas and ACECs; land tenure adjustments.

Impact Analysis

Withdrawal actions taken by Congress or the Secretary of the Interior in Alternative E would remove 236,366 acres (about 16%) of public lands in the resource area from location and development under the general mining laws, subject to valid existing rights of pre-existing mining claims. Validity exams would be conducted on these claims to determine whether valid existing rights exist. See Table LOCM-E for specific closures.

Managing lands with high locatable mineral potential primarily for mineral development could result in adverse impacts on riparian areas, water quality, wildlife, cultural and wetland resources through construction of roads, drill pads, mine pits, dumps, heap leach pads and related facilities. Requiring industry to use best management practices during all phases of exploration and mining would minimize damage to other resource values. Mitigating measures would stabilize areas disturbed during mining and prevent excess sediment deposition in wetlands and live streams. Proper design of facilities would reduce or eliminate acid mine drainage and wildlife kills. Cultural resources could be salvaged prior to or during construction to mitigate adverse impacts on historic resources. Performance bonds would be required of all operations conducted under a Plan of Operations as defined by 43 CFR 3809.1-4. Inspections of all exploration operations using mechanized equipment and of all mining operations would occur on a frequent basis to insure an adequate level of mitigation and protection.

Land tenure adjustments would remove a small amount of land from location under the general mining laws. Mineral reports would be prepared on all lands involved in the sales and exchanges and mining claims on public lands would require a validity examination to determine any valid existing rights.

Conclusion

The overall impact of Alternative E on locatable mineral resources would be favorable to mineral resource development. Reasonable restraints on exploration and development can be imposed to reduce adverse impacts on other resource values.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Physical access to the resource is provided for by the mining laws. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Two main criteria were considered when determining if the objectives were being met: 1) Developmental restrictions - if maximum bonding, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 2) Potential likelihood of development - is the resource present in economically minable amounts.

Objective LOCM 1: Provide opportunities for exploration and development of locatable mineral resources on public lands under the Mining Laws.

The objective would be met in Alternative E.

Availability of Lands for Locatable Mineral Activity Relative to Resource Potential - Alternative E.

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	24,974	1,207,521	1,232,495
Withdrawn	366	236,000	236,366
Split Estate			
Open	2,135	126,001	128,136
Withdrawn	40	5,265	5,305

Fluid Minerals

Change Agents

Mineral leasing closures and restrictions in wilderness areas, corridors along nationally designated rivers, certain recreational areas and ACECs, for riparian and wetland management, water quality protection, recreation use, wildlife habitat, and land tenure adjustments.

Impact Analysis

In Alternative E 114,047 acres (8%) of public lands in the resource area would be closed to oil and gas and geothermal leasing. Of this acreage 65,131 acres are currently closed. All but 4,043 acres of split-estate lands (oil and gas) and 2,156 acres (geothermal), where the surface is privately owned, would be open to leasing. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for fluid mineral leasing. Those WSA's are not specifically listed in Table FLUM-E, however considerable areas shown in the table overlap or are contained within the WSA's.

Restriction of fluid mineral operations through seasonal or yearlong no surface occupancy would impact 576,160 acres (39%) of public lands in the resource area. Seasonal restrictions on operations would not seriously impede any future leasing activity and should provide adequate protection to wildlife resources. About 211,000 acres are prescribed for yearlong no surface occupancy restrictions, which could have an adverse impact on leasing since there would be no practical way to explore or develop some of these lands. See Table FLUM-E for specific closures and restrictions.

Modifications to any future exploration or drilling program would usually be made to protect riparian and wetland areas and water quality without seriously impeding fluid mineral development. Protection of these resources would not likely have any serious impact on fluid mineral operations in the foreseeable future.

Recreation activities would generally be incompatible with fluid mineral exploration and development. Noise, dust and heavy machinery associated with drilling operations would adversely impact recreational opportunities on the public lands. Future drilling sites may have to be fenced off from nearby established recreation areas, such as campgrounds, OHV parks or trails for safety purposes. Access routes into fluid mineral development sites may have to be restricted or relocated to not interfere with certain recreation activities. Established recreation sites may require a buffer of public lands where development activities would be restricted to reduce disturbance to recreationists.

Land tenure adjustments would cause some minor shifts in the amount of land available for fluid mineral leasing.

Conclusion

The outlook for an active fluid minerals leasing and exploration program is poor. There would always be some interest in fluid minerals in southwest Idaho, particularly in low-temperature geothermal resources, but until energy prices are much higher then present or until new technology becomes available, no leasing activity is likely to occur. Large scale no surface occupancy restrictions may have a small adverse impact on any leasing interest in the southern part of the resource area. Overall, the impact of Alternative E on fluid minerals development is moderately favorable.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective FLUM 1: Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.

The objective would be met in Alternative E.

Availability of Lands for Fluid Mineral (Oil and Gas) Activity Relative to Resource Potential - Alternative E.

Management Constraint	Low Potential	Zero Potential	Total
Public Lands			
Open	455,901	322,750	778,651
Open-Seasonal	244,680	120,320	365,000
Occupancy			
Open-No Surface	15,296	195,864	211,160
Occupancy			
Closed	104,973	9,074	114,047
Split Estate			
Open	65,083	64,315	129,398
Closed	2,926	1,117	4,043

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Availability of Lands for Fluid Mineral (Geothermal) Activity Relative to Resource Potential - Alternative E.

Management Constraint	High Potential	Low Potential	Total
Public Lands			
Open	56,210	722,441	778,651
Open-Seasonal	12,420	352,580	365,000
Occupancy Open-No Surface	34,505	176,655	211,160
Occupancy Closed	81,589	32,458	114,047
Split Estate			
Open	410	130,875	131,285
Closed	1,039	1,117	2,156

Mineral Materials

Change Agents

Population growth; mineral withdrawals for certain wildlife areas, recreation sites, natural areas and ACECs; land tenure adjustments.

Impact Analysis

In Alternative E, 3,470 acres (8%) of public lands classified as having high potential for sand and gravel would be closed to disposal. This small area is not likely to seriously impede development of the area's mineral material resources. See Table MMAT-E for specific closures. Under the Interim Management Plan 298,630 acres of Wilderness Study Area (WSA) are unavailable for mineral material disposal. Those WSA's are not specifically listed in Table MMAT-E, however considerable areas shown in the table overlap or are contained within the WSA's.

Protecting riparian areas and wetlands would require some restrictions on the development of mineral material sites, particularly along stream channels. Future material sites would likely be located along bench and terrace gravel deposits and alluvial fans away from any live water. Access roads into material sites may need to be relocated or engineered specifically to protect wetlands and riparian areas.

Land tenure adjustments would remove a small amount of public land from availability as material sources.

Conclusion

The overall impact of Alternative E on mineral materials management in the Owyhee Resource Area is generally favorable for the development of these resources.

Meeting the Objectives

Criteria for determining if the objectives are being met is quite different for minerals than for other renewable resources. Management actions would have much less an impact on the resource than on the opportunities to use the resource. Three main criteria were considered when determining if the objectives were being met: 1) Physical Access - is the area open and if so would access roads be allowed in or to an area where minerals are present. 2) Developmental restrictions - if seasonal, no occupancy, or other developmental restrictions are allowed, can the resources be economically developed using current technology. 3) Potential likelihood of development - is the resource present in economically minable amounts.

Objective MMAT 1: Provide opportunities for use of common variety minerals obtained from the public lands.

The objective would be met in Alternative E.

Availability of Lands for Mineral Materials Activity Relative to Resource Potential - Alternative E.

Management Constraint	High Potential	Moderate Potential	Total
Public Lands			
Open	39,830	1,192,711	1,232,541
Closed	3,470	232,8472	36,317
Split Estate			
Open	1,370	131,029	132,399
Closed	20	1,022	1,042

Recreation

Change Agents

Recreation use, OHMV designations, special designations, recreation facilities, fencing, water developments, acquisition, vegetation treatments, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Changes in the Availability of Recreation Opportunity Settings

Alternative E would result in some shift in the amount of acreage available in each of recreational opportunity spectrum (ROS) classifications (Map RECT-1); refer to Table RECT-3 for a description of ROS. Semi-primitive motorized settings would remain the predominant opportunity class, covering about 44% of the resource area. In the northern portion of the resource area, roaded natural, rural, and urban settings would accompany semi-primitive motorized settings, and some semi-primitive motorized settings would remain in remote mountainous areas. In the southern portion of the resource area, semi-primitive motorized settings would continue to isolate numerous areas of semi-primitive nonmotorized settings across the open plateau areas, as well as to border large areas of primitive and semi-primitive

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nonmotorized settings encompassing the Owyhee Canyonlands and the North Fork Owyhee River Backcountry SRMAs. Also in the south, roaded natural settings with some rural acreage would be associated with the Owyhee Uplands National Back Country Byway and several connecting roadways.

ROS Classifications In Alternative E

ROS Class	Total Acres in 1998	Percent of Resource Area in 1998	Percent of Resource Area in 2018
Primitive	234,983	13%	10%
Semi-Primitive Nonmotorized	386,150	22%	23%
Semi-Primitive Motorized	794,010	44%	44%
Roaded Natural	177,080	10%	12%
Rural/Urban	187,269	11%	11%
Total*	1,779,492	100%	100%

* All lands: BLM, State and private.

Management actions in Alternative E are projected to cause changes in ROS class acreages primarily within primitive and semi-primitive motorized and nonmotorized settings. Changes in classification could result from, 1) off-highway motorized vehicle activity allowed under various OHMV designations; 2) increased administrative access to new range developments; 3) development or upgrading of vehicle routes for mineral exploration and development; or 4) vegetation treatments.

Off-highway motorized vehicle (OHMV) designations prescribed in Alternative E would manage public use on 519,442 acres limited to existing roads and trails, and 698,363 acres limited to designated roads and trails. There would be 101,994 acres closed to OHMV use. At the Hemingway Butte OHV trailhead, a 192 acre play area would be designated open to cross-country travel of motorized vehicles. See Map RECT-1E1.

Administrative routes to new range developments are projected to be unconstructed jeep trails, potentially reducing the amount of primitive and semi-primitive nonmotorized settings available. Recreational development would also contribute somewhat to increased semi-primitive motorized and roaded natural settings. Upgrading and development of road access to mineral development and exploration sites would continue to reduce the quality of surrounding semi-primitive settings.

While wilderness study lands remain under the BLM Interim Management Policy (IMP), no change in ROS settings would occur. Should agency wilderness suitability recommendations be accepted by Congress, 123,800 acres of public lands would be released from the IMP and made available for other multiple uses. Vegetation treatment projects could then substantially affect the naturalness of the released Juniper Mountain area, converting primitive settings to mostly semi-primitive motorized settings. In the North Fork Owyhee River Backcountry SRMA/WSA, vegetation treatments could cause some reduction in naturalness, resulting in a shift toward semi-primitive nonmotorized settings. The semi-primitive nonmotorized settings of the plateau lands in the Owyhee Canyonlands region (including nonsuitable WSA lands) could also be affected by vegetation treatment projects that would affect the quality of semi-primitive nonmotorized experiences by reducing naturalness, although these projects would probably not cause a change in ROS class. Some primitive settings in non-WSA areas around upper Nickel Creek would also shift to semi-primitive motorized or nonmotorized settings as a result of vegetation treatment projects. Restrictions on project development and OHMV use in portions of WSAs would continue to protect primitive and semi-primitive non-motorized recreation opportunities there.

Impacts on Recreational Opportunities in Special Recreation Designations

Alternative E prescribes intensive management of ten (10) special recreation management area (SRMA) designations totalling 432,813 acres (Map RECT-2E). Alternative E also recommends congressional designation of 163 miles along the North Fork Owyhee, East Fork Owyhee, South Fork Owyhee, Owyhee River, Deep Creek, Nickel Creek, and Current Creek as components of the National Wild and Scenic River System (Map WSR-E). These river segments are within the Owyhee Canyonlands, North Fork Canyon, North Fork Owyhee Backcountry, and Deep Creek SRMAs.

Management actions prescribed in SRMAs are tailored to protect existing ROS classifications with emphasis on minimizing changes in the current level of natural conditions or by improving public access to allow the enjoyment of the natural resource base. Management actions in Alternative E retain the existing SRMAs, with boundary adjustments to reflect changing use patterns and conformance with plan objectives. Mineral withdrawals in some SRMAs and developed recreation sites would eliminate mining related impacts, and protect recreational values over the long term. Limited OHMV designations in some SRMAs and ACECs would provide for motorized recreation while protecting natural resources. Primitive, nonmotorized recreation opportunities would be retained in some SRMAs. Nonmotorized recreation opportunities would be further enhanced in areas currently receiving little recreation use (North Fork Owyhee Backcountry and North Fork Canyon SRMAs) through trail developments where such use would not be detrimental to other resource values. Alternative E would also ensure maintenance of existing roaded natural experiences associated with recreation sites as well as enhancing these experiences through development of new sites in the North Fork Backcountry, Owyhee Canyonlands, and along the Owyhee Uplands National Back Country Byway.

Impacts on the Quality of Recreational Experiences

Management actions prescribed in Alternative E would result in a change in the availability of the various recreational opportunity settings. Management actions would also affect the overall quality of recreational experiences that would be obtainable in the resource area.

Primitive settings require a sense of remoteness, a vastness (size), and little or no evidence of human use. Currently, recreational users seek out the canyonlands and some adjoining plateau and rock outcrop landscapes of the Owyhee River system for primitive recreation experiences. In Alternative E, these lands are prescribed for mostly Class I and II visual resource management (VRM), where management actions would be allowed only when they would only slightly affect the naturalness or scenic quality of the landscape. Recreation management actions identified in Alternative E affecting VRM Class I and II areas include short portage trails around two rapids on the East Fork Owyhee River (Owyhee Canyonlands SRMA), and the foot/equestrian trail systems within the North Fork Owyhee River watershed (North Fork Canyon and North Fork Owyhee Backcountry SRMAs. Projected increases in recreation use on the East Fork would not be enough to cause substantial adverse effects to naturalness, aesthetic qualities or solitude opportunities in the river canyon, except at isolated areas of concentrated use such as the rapid portages. Increased levels of recreation use at the portages are projected to produce unsightly, random, unstable trailings around the rapids. The proposed construction of portage trails would prevent this degradation. The foot trails along the North Fork would be built so as not to adversely affect naturalness or scenic values for which primitive experiences are dependent. Currently the only maintained foot trail in the resource area is the 0.8 mile long Jump Creek Trail. Developing foot access into the North Fork Owyhee system would improve the diversity in the types of nonmotorized experiences available in primitive and semi-primitive natural settings.

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Other recreation management actions pertaining to development and maintenance of recreation facilities (campgrounds, picnic areas, foot/equestrian trailheads and foot/equestrian trails) in semi-primitive motorized and roaded natural settings would provide increased choices in access opportunities without substantially affecting the natural or aesthetic character of the landscape, but would contribute to increased recreation use. Trail development would improve nonmotorized access into rugged canyon areas giving access to many who would otherwise not have an opportunity to experience these settings. Such facilities tend to promote localized increases of recreation use at a rate greater than at undeveloped sites, and would demand a greater managerial presence.

In order to provide for OHMV use of the resource area while protecting the natural resource base, Alternative E proposes to transition certain areas to a designated road and trail system. Areas where OHMV access would be limited to designated routes include the Owyhee Front SRMA, Snake River Birds of Prey NCA (in conformance with the NCA Management Plan), Oregon Trail SRMA, some ACECs, crucial wildlife winter range, wild horse herd management areas, and portions of WSA lands. The process of identifying and designating the transportation network in these designated areas is projected to be completed within five years after RMP approval. Actual route designations in these areas will be determined in a subsequent process that includes public involvement. Travel maps will be published and signs posted as part of the implementation of the designated road and trail system.

Until specific route designations have been established for an area, OHMV use in that area will be limited to existing roads and trails (and sand washes in areas currently designated L1). Within wilderness study areas, only roads and ways documented in final wilderness environmental impact statements will be considered for designation. All components of the transportation network will be evaluated with the intent to provide quality OHMV opportunities balanced with other resource concerns. Some roads and trails may be closed or rerouted, and there may be new road and trail development. There may be seasonal restrictions on access through crucial wildlife winter range to protect mule deer and pronghorn antelope, from 12/15 through 3/31 (Maps WDLF-1 and WDLF-3). There may be seasonal restrictions on access through herd management areas to protect wild horse herds, from 11/15 through 6/30 (Map WHRS-4).

Due to the very large geographic distribution and high density of existing roads and trails, the transition to a designated road and trail system is not projected to have a significant impact on OHMV use. Development of designated road and trail systems would have a positive impact on other resource values.

Areas closed to OHMV use would include portions of WSAs and some ACECs. The closed areas are predominantly roadless, so this designation would not negatively impact OHMV users. The closed designations would enhance primitive and semi-primitive nonmotorized recreation opportunities and protect the particular values of these areas. The most unrestrictive OHV use area would be the open area around the Hemingway Butte OHV trailhead.

Use of mechanized vehicles, such as mountain bikes, would conform to the same designations as OHMVs. This is not projected to have a significant impact, as current recreational use of mechanized vehicles is low due to the low amount of suitable terrain, and more favorable riding opportunities outside the resource area.

A competitive use area would be established along the Owyhee Front (Map RECT-1E2). Applications for special recreation permits for competitive motorized and mechanized events would be considered on designated trails within this area. The competitive use area totals 224,265 acres. Applications for competitive events within a 13,959 acre portion of the competitive use area would be considered only for events to be conducted from July 1 through November 14, in order to protect wild horses within the Black Mountain Herd Management Area. The competitive use area contains over 800 miles of primitive roads and trails, and includes almost all of the historically used racecourses in the resource area. Establishment of the competitive use area is projected to have a positive effect on recreational racers, by designating a large area for this type of use.

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Over snow vehicle (OSV) use would be open on 864,729 acres, limited to designated areas on 24,211 acres, limited with seasonal restrictions on 90,749 acres, and closed-IMP on 81,267 acres, and closed on 259,036 acres (Map RECT-3E). The area around Silver City defined as limited to designated areas is popular for skiing, snowshoing, and snowmobiling. It would continue to be managed as open for OSV use until winter use levels increase to a point that more intensive management becomes desirable. At that time, a subsequent planning process, with public participation, would be used to determine designated areas for different winter uses. Crucial wildlife winter range for deer and antelope (Maps WDLF-1 and WDLF-3) would be closed to OSV use from December 15 through March 31. Wilderness study areas, and some ACECs, would be closed to OSVs. Five WSAs recommended not suitable for wilderness designation would be designated Closed-IMP for OSV use. If released from IMP, those five WSAs would convert to designated areas for winter use, with a subsequent planning process to determine designations. OSV designations proposed in Alternative E would provide ample opportunities for motorized recreation in winter, while also retaining opportunities for primitive, non-motorized recreation, and protecting wintering wildlife. Due to more consistent winter snowpack, more suitable terrain, and easier access, most recreational OSV use in southwestern Idaho occurs outside the resource area.

Since approval of the Owyhee MFP in 1981, numerous range developments have been constructed, and each project reduces the natural character of the area. These projects add to the impact of hundreds of other projects already in place. Under Alternative E, new developments would continue to be constructed, but not at the magnitude of earlier development. Project emphasis would be construction of pasture fences and riparian exclosures. These projects could have a slight to moderate adverse cumulative effect on semi-primitive recreation values, a further loss of the free-roaming experience historically provided on public lands in the resource area. Continued use of cattleguards in fences would help mitigate the loss of quality in the motorized free-roaming experience, yet recreational users involved in both motorized and nonmotorized activities would find their access inhibited by more fencing.

A number of fences and gates define legal divisions between public and private properties. Many of these gates can be locked or posted by landowners, which prevents public access to large blocks of public land. Land actions (acquisitions of easements, title, and exchanges) proposed in Alternative E have the potential to provide public access where actions taken on private property restrict access to large blocks of public land.

Improved upland and riparian vegetation conditions brought about by changes in grazing systems and the use of riparian exclosures could result in wildlife population increases. Increased recreational opportunities that involve wildlife would occur. Similar beneficial impacts could also occur to fish populations, benefitting anglers and other recreationists. Recreational experiences within the river corridors excluded from livestock would improve as riparian conditions improve and bench sites recover from livestock impacts. However, from a recreational perspective, there could be a disadvantage to improving riparian conditions in some areas. Densely vegetated stream channels make access difficult for hiking, fishing, and camping. Improving riparian conditions could adversely affect navigability and boating safety along the narrow upper reaches of Deep Creek as more shrubby vegetation overhangs the stream channel.

Vegetation treatments proposed in Alternative E would degrade the scenic quality of the landscape and the landscape's natural character. Prior to an area's recovery and regeneration, the quality of recreational experiences would be diminished. In time (25 to 50 years), visual effects of treatments would be largely gone and the quality of the recreation experiences restored or enhanced. Treatments would be concentrated in the Jordan Creek area and northern portion of the Owyhee River area within mostly VRM Class III and IV areas. Numerous treatments in this region would have a cumulative effect on the quality of recreational experiences of all types within predominantly primitive and semi-primitive motorized and nonmotorized settings, and, to some extent, roaded natural settings. The amount of acreage in primitive settings within the resource area could be reduced from 13% to 10% if nonsuitable WSA lands are released from the Wilderness IMP and certain vegetative treatments applied. In semi-primitive motorized settings, reduced natural and scenic character may be tolerated more readily by hunters (a primary user group) in light of the improved game populations projected. Those using roaded natural settings along such roads as the Owyhee Uplands National Back Country Byway would have their recreation experiences most affected because the sight-seeing and driving for pleasure activities sought on these roads are highly dependent on scenic quality.

Concerns for watershed protection in Alternative E could have an effect on the availability of OHMV trails in the roaded natural and semi-primitive motorized settings of the Owyhee Front SRMA. Trails may have to be repaired, rerouted, or closed to stabilize or reverse erosion caused by off-highway motorized vehicles.

Alternative E would allow for continued locatable and fluid mineral exploration and development activities. Most mineral activities affecting recreation use are projected to continue to be concentrated in the Silver City area and the Owyhee Front. The nature of open-pit mining prevents the public from utilizing much of the area for safety reasons for the duration of mining operations. Development of additional mine sites in the Silver City area would result in a cumulative effect on recreational experiences ranging from exclusion, restricted access, and degradation of natural and scenic quality. Other mineral activities, such as the exploration for oil resources, could also cause new roaded natural corridors and cause localized reductions in the quality of recreational experiences in the semi-primitive motorized settings of the Owyhee Front and primitive to semi-primitive nonmotorized settings in the Owyhee Canyonlands region.

To protect the high quality of primitive recreational experiences in suitable wild and scenic river corridors from the effects of potential mineral exploration and development, Alternative E recommends withdrawal of affected lands from mineral entry. Withdrawals would affect the canyon systems of the North Fork, East Fork and South Fork Owyhee Rivers, and Deep-Current Creek. The remaining eligible river segments in the resource area would not receive withdrawal protection. Should Congress not accept the BLM's national river or wilderness recommendations, the absence of such designations for lands adjoining the Paiute (El Paso) Gas Pipeline crossing of the East Fork Owyhee River could result in development of a high voltage powerline utility corridor in the Owyhee Canyonlands region. Such development would result in new roaded corridors and would eliminate or severely diminish primitive and semi-primitive nonmotorized recreation opportunities on surrounding canyon and plateau lands of the WSA complex. Development would also reduce the quality of semi-primitive motorized recreation opportunities on surrounding plateau lands (see the Owyhee Canyonlands Wilderness EIS for details).

Conclusion

Alternative E would provide a variety of recreation opportunities while protecting resource values. There would be intensive management of recreation resources and recreation use on 432,813 acres within ten special recreation management areas. Included in this acreage would be the recommendation for congressional designation of 163 miles of river canyon as additions to the National Wild and Scenic River System, to afford long-term protection to the rivers' nationally significant values. Alternative E would provide for extensive OHMV opportunities including the use of single-track trails and sand washes. There would likely be a reduction in OHMV opportunities within wild horse herd management areas and crucial wildlife wintering areas. There would be a slight shift in VRM and ROS class due to vegetation treatment

[redacted]

projects and other development projects, particularly if WSAs are released from potential wilderness classification. VRM Class I and II areas would protect existing recreation settings and opportunities in most areas.

Meeting the Objectives

Objective RECT 1: Provide for off-highway motorized vehicle (OHMV) use on public lands while protecting sensitive resource values.

Off-highway motorized vehicle designations in Alternative E would fully meet the objective of providing for a wide variety of OHMV opportunities within the resource area, while increasing the level of protection needed to protect sensitive resource values.

Objective RECT 2: Provide special management attention to areas of public land with identified special recreational, scenic, and cultural values where current and projected recreational demand warrants intensive management.

The special recreation management areas identified in Alternative E would contain all lands needing special attention because of intensive recreation use and conflicts with sensitive resource values in predominately roaded natural and semi-primitive motorized settings, and all lands needing protection of nationally significant recreation and scenic values associated with primitive settings.

Objective RECT 3: Determine the suitability of all eligible rivers and streams for inclusion in the National Wild and Scenic Rivers System.

Alternative E would provide permanent protection on 74% of the eligible river miles in the resource area under a suitable recommendation for the largest and most nationally significant of the canyonlands associated with the entire Owyhee River drainage system within the resource area. The remaining river segments in the resource area considered to be nonsuitable in Alternative E are mostly small tributary streams to those found suitable, some stream lengths of which are contained in the recommended legal descriptions for associated suitable segments.

Objective RECT 4: Provide for high quality recreational opportunities and experiences at developed and undeveloped recreation sites by maintaining existing amenities (roaded natural, urban and semi-primitive motorized settings) and by providing new recreation sites for the public's enjoyment, with emphasis on roaded natural and semi-primitive motorized settings.

Alternative E would fully meet the objective by providing for continued developed recreational experiences at existing sites and by establishing direction in the development of new recreation sites throughout the resource area, particularly in areas where recreation use is projected to be most significant during the next 20 years.

Objective RECT 5: Develop a trail system that provides a range of motorized and nonmotorized recreation opportunities for the public's enjoyment of primitive, semi-primitive nonmotorized, semi-primitive motorized and roaded natural settings.

Actions identified in Alternative E would meet this objective because there would be adequate attention given to 1) meeting the need for more recreation facility (trail) development in the Snake River GRA to deal with increasing recreation demand for more diverse recreation opportunities, and 2) meeting the need for more public information on more diverse recreation opportunities.

[redacted]

Objective RECT 6: Pursue increased public access opportunities in motorized and nonmotorized settings through the acquisition of fee titles or recreational easements (willing landowners only).

Alternative E would fully meet this objective.

Objective RECT 7: Retain at least 10% of the Owyhee Resource Area in a primitive recreational opportunity (ROS) setting.

Alternative E would meet this objective by providing long-term protection to existing primitive settings found on 10% of the resource area.

Wilderness

Change Agents

Vegetation treatments, fencing, water developments, OHMV activities, recreation facilities, utility corridors, and locatable and fluid mineral activities.

Impact Analysis

The 294,740 acres of wilderness study areas (WSAs) in the resource area (see Map WNES-1) are required to be managed under BLM Interim Management Policy For Lands Under Wilderness Review (IMP) to protect their wilderness characteristics, which include naturalness, and outstanding opportunities for primitive recreation or solitude. The IMP prohibits taking any action considered to adversely affect a WSA's suitability for congressional wilderness designation. An action is considered an impairment of wilderness suitability if: 1) it individually, or when considered collectively with other existing human prints, makes the imprints of man substantially noticeable to a casual observer in the WSA as a whole, and/or 2) the action reduces the value of the WSA for wilderness as compared to other land uses. No actions have been identified in Alternative E which would impair wilderness values on WSA lands.

In Alternative E, as with all other alternatives, the recommendation for congressional designation of 195,980 acres of public lands as wilderness is carried forward. Within this acreage are 3,890 acres of non-WSA, Section 202 FLPMA study lands which have also been recommended for wilderness designation. Unlike WSA lands, Section 202 study lands are to be protected only from unnecessary and undue degradation under authority of Section 302 of FLPMA. No actions which would cause unnecessary or undue degradation have been identified for Section 202 lands in Alternative E.

Alternative E provides direction for management of WSAs through the identification of various visual resource management (VRM) classifications and off-highway motorized vehicle (OHMV) designations. There are 71,332 acres classified as VRM Class I, 242,150 acres as VRM Class II, and 123,496 acres as VRM Class II-IMP (Map VISL-E). For OHMV use, all WSA lands are designated as Closed or as Limited-Designated. These classifications and designations identify the level of development and uses allowed under IMP and what would be allowed if lands are released from the IMP by Congress.

If released from WSA status, affected VRM Class II-IMP lands would become VRM Class IV areas. In VRM Class IV areas, a variety of range projects (livestock, wildlife and watershed) could occur. Alternative E identifies vegetation treatment projects, fences, spring developments, and one stream channel stabilization project. In some areas, new roads and jeep trails could be developed to support these projects. An estimated 12,900 acres of public land in the Juniper Mountain WSA complex would have substantial losses of wilderness characteristics. Naturalness and outstanding opportunities for solitude and primitive recreation would be diminished as these projects were implemented. Details concerning the loss of wilderness characteristics in the Juniper Mountain WSA complex are discussed in the Owyhee Wilderness Plan Amendment EIS.

If not designated as wilderness, impacts on wilderness characteristics similar but less extensive than those described for the Juniper Mountain WSA complex, are projected to occur in the juniper woodland areas of the North Fork Owyhee River WSA. The North Fork WSA would retain its special recreation management area (SRMA) designation, and be managed under VRM Class I and II standards, with primarily a closed OHMV designation. OHMV activity would be restricted to a few designated roads and jeep trails. Vegetation treatment projects, fences, and watershed stabilization projects in Class II areas would be the minimal necessary to meet management objectives for these resources without notably altering the natural character of the landscape. The level of potential development is projected to be greater in VRM Class II areas than would occur in the VRM Class I areas, where virtually no rangeland development could occur. Overall, there are at least 10,350 acres of the North Fork WSA which would have slight to moderate losses of wilderness characteristics.

Recreational access roads on the southern periphery of the North Fork WSA would be upgraded. Primitive trailheads would be developed to service a recreational foot and equestrian trail system. Under IMP, trail development is permitted to enhance opportunities to experience primitive recreation activities within WSAs.

Lands in the Owyhee Canyonlands WSA complex would also be managed under VRM Class I and II standards, and a Closed or Limited-Designated OHMV designation. On these lands there are no BLM-initiated actions proposed which would adversely affect wilderness characteristics. The proposed exclusion of livestock from sections of the river corridors would enhance wilderness characteristics there. Launch site and portage trail development would help stabilize sites with concentrated recreational use. Major access roads would be retained at their current level of development.

The VRM Class II-IMP and Limited-Designated OHMV designation would apply to plateau lands of the Owyhee Canyonlands WSA complex. For these lands, release from IMP is generally not projected to result in activities that would substantially compromise existing wilderness characteristics. If reductions or losses of wilderness characteristics occur, they would likely result from mechanical drill seeding of rangelands to rehabilitate lands affected by wildfire. Mechanical seeding leaves a cultivated appearance on the landscape that could exist for many years. Details concerning impacts on wilderness characteristics in the Owyhee Canyonlands WSA complex are discussed in the various alternatives presented in the Owyhee Canyonlands Wilderness EIS. From development scenarios provided by the Owyhee Canyonlands Wilderness EIS, it has been estimated that as much as 32,190 acres of the Owyhee Canyonlands WSA complex in Idaho could eventually have diminished naturalness as a result of seeding projects over the long term.

There are two additional types of actions which could occur in the absence of wilderness designation: utility corridor development and locatable and fluid mineral activities. There is a high probability for establishment and development of an enlarged and less restrictive utility corridor along the Paiute (El Paso) Gas Pipeline which runs north-south through the Owyhee Canyonlands WSA complex just west of the Duck Valley Indian Reservation. The existing corridor is one-mile wide and use is currently restricted to underground developments in the vicinity of the WSAs. The existing corridor is one of several routes which has been identified for future planning of high voltage powerlines to service interstate electrical needs. Utility corridor development in the absence of wilderness or wild river designation for the East Fork Owyhee River, would severely reduce or eliminate wilderness characteristics on 10,330 to 10,760 acres of WSA plateau and canyonlands adjoining the Paiute (El Paso) Gas Pipeline (WSA ID-16-49D and WSA ID-16-52). Refer to the Owyhee Canyonlands Wilderness EIS for details on the El Paso utility corridor.

There is a low to moderate potential for locatable and fluid mineral exploration and development in the Owyhee Canyonlands WSA complex. Despite the unnecessary and undue degradation standards required by the mining regulations, any mining activity in the canyons of the Owyhee River system could cause significant impacts on naturalness and outstanding opportunities for primitive recreation. For details concerning potential impacts from mineral activity, refer to the Owyhee Canyonlands Wilderness EIS. As with utility corridor development, the potential for mineral development in the absence of wilderness designation is subject, in part, to congressional action on wild and scenic river suitability recommendations. There is also potential for exploration and development of oil and gas reserves on plateau lands of the Owyhee Canyonlands WSA complex. These are the same lands which could be affected by wildfire rehabilitation seeding projects. According to scenarios developed for the Owyhee Canyonlands Wilderness EIS, as much as 5,100 acres of Idaho BLM lands could be at least temporarily affected by energy exploration.

Conclusion

Implementation of Alternative E would ensure protection of WSA lands while they remain under IMP. In the event of non-wilderness designation, up to 55,440 acres of the WSA lands in the resource area would experience a moderate to substantial lost of wilderness characteristics due primarily to vegetation treatment projects. The loss could be further increased by at least 10,330 acres in the absence of national wild river designations within the Owyhee River WSA complex due to utility corridor development.

Meeting the Objectives

Objective WNES 1: Manage wilderness study areas so as not to impair their suitability for potential designation as wilderness.

In compliance with BLM's Interim Management Policy For Lands Under Wilderness Review, Alternative E would ensure long-term protection of wilderness characteristics on Section 603 wilderness study lands and would not adversely affect wilderness values on Section 202 study lands.

Objective WNES 2: Following any enabling legislation, manage designated wilderness areas to ensure an enduring wilderness resource.

This objective is applicable to the Owyhee RMP only after congressional wilderness designation of select Section 603 and 202 study lands in the resource area. Any activity plan developed because of wilderness designation will have protection of wilderness values as its primary objective.

Visual Resources

Change Agents

Vegetation treatments, fencing, water developments, watershed stabilization projects, wildlife guzzlers, recreation facilities, OHMV activities, locatable and fluid mineral activities and utility corridors.

Impact Analysis

Alternative E prescribes managing all public lands in the resource area under one of five visual resource management (VRM) classes ranging from VRM Class I to Class IV. VRM classifications are defined in Appendix VISL-1.

VRM Class	Acres
VRM Class I:	71,332
VRM Class II:	242,150
VRM Class II-IMP:	123,496
VRM Class III:	144,785
VRM Class IV:	738,228

Impacts on the visual resources of WSA lands would not be impacted in Alternative E as long as the Wilderness Interim Management Policy stays in effect. If WSA lands are released from the IMP, some WSA acreage will convert from VRM Class II-IMP to VRM Class IV. Without IMP, the visual quality of some WSA lands would be affected in the same manner as projected below for the various project developments identified in Alternative E for VRM Class II, III and IV areas.

Visual impacts from vegetation treatments would be most prominent in VRM Class III and IV areas. Treatments would primarily include prescribed fire and logging in seral juniper stands, and prescribed fire in sagebrush-grassland communities. The degree and longevity of visual impacts from such projects is dependent upon the type of treatment, size of treatment areas, and the vegetative community involved. Over time, the degree of impact would lessen in treatment areas, and would result in a more diverse and scenic landscape in treated areas.

In VRM Class I areas, there would be no rangeland developments, except for a small amount of gap fencing. In VRM Class II areas, new range development projects would be more restricted than those allowed in VRM Class III and IV areas in order to retain an essentially natural landscape. Placement of fencelines across landscapes to exclude livestock from wetlands or to delineate allotments and pastures would not directly affect visual quality. The fences would generally be unnoticeable on the landscape from short viewing distances. However, livestock, wildlife, and OHV trails often develop parallel to fencelines, and these would be visible for greater distances, as would any differences in forage utilization in adjacent fenced areas.

Riparian and spring development exclosure fences can cause both beneficial and adverse impacts on visual quality on a localized basis. Construction would result in minimal surface disturbance and lead to an overall improvement in vegetative cover within the exclosure. Lush riparian communities add to the visual quality of the landscape. However, spring developments for livestock use can also contribute to concentrated trampling and removal of vegetation around water troughs. There is the potential for turning a number of viewsheds into ribbons of lush, green riparian vegetation bordered by trails along the exclosure fences, generating lines and forms that would not be in harmony with natural features. These impacts can be mitigated by fence location and design techniques.

Livestock reservoirs can be designed to different standards to reflect concerns over visual quality based upon the affected area's VRM classification. A higher visual standard can be achieved by emphasizing the use of line and form in the layout, construction and reconstruction of earthen dams. The added presence of surface water after dam construction generally enhances the scenic quality of landscapes.

Restoration of native vegetation around reservoir sites can lessen the visual impact of dam construction and surrounding surface disturbances by restoring the original landscape elements of color and texture. However, reservoirs, by their very purpose, concentrate livestock use, which inhibits or prevents vegetation restoration. Vegetation restoration is also difficult when borrow pits are used to construct dams. Consequently, within VRM Class II areas, the use of dam building materials from outside the water impoundment area would be prohibited.

Stock water pipelines are also proposed in this alternative. Surface disturbances associated with laying pipelines can be minimized in deeper soil types. In shallower, rocky soils, bulldozed trenches could be required, thereby enlarging the linear disturbance which contributes to color, texture and line disharmony on the landscape. While disturbances could readily heal in many areas within 5 years, the pipelines are often paralleled by maintenance roads that increase the visual impact of the pipeline. The troughs used in association with pipelines often lead to the localized loss of vegetation from concentrated livestock use, somewhat reducing visual quality.

Disturbances associated with watershed stabilization projects would be mitigated by riparian vegetation regrowth and channel siltation in less than 5 years. The affected stream channels would then show an overall improvement in visual quality, attributed to the increased abundance, and sometimes diversity, of riparian vegetation. Watershed stabilization efforts could also increase the yearlong abundance of surface waters, which would also enhance visual character.

Wildlife guzzlers would consist of a fence exclosure and an encatchment system. Such projects are usually associated with dry climate areas of the Owyhee Front. To mitigate the visual intrusion of these small projects, the guzzler sites can be painted a compatible color and located on sites minimally visible within the affected viewsheds.

Existing and proposed recreation site developments are few and widely scattered and generally would not affect the scenic quality of the resource area as a whole. Recreation sites are designed to reflect the elements of the characteristic landscapes found in their viewsheds; form, color, line and texture. Recreation site developments do modify the natural landscape, but over the long term, the projects reduce visual damage to recreation sites from concentrated and uncontrolled recreational use as more and more people use these areas.

The foot/equestrian trail systems proposed for the Owyhee River region would result in both initial construction impacts and localized visitor use impacts. Initial impacts would include construction of trails along river channels currently unaffected by any development. Trail design techniques would be used that have minimal effects on visual quality. Vegetative screening from juniper woodlands and moderately dense to dense riparian communities coupled with careful location of necessary trail switchback areas would keep the trail substantially unnoticeable on affected landscapes as a whole. Recreation use of the trails would result in localized trampling of vegetation and soil compaction at popular primitive campsites, leading to localized adverse visual impacts. These impacts could be kept to a minimum by periodically resting select campsites. Without such a trail system to help manage recreation use, there is a moderate to high probability that unregulated foot traffic associated with increasing backpack use would eventually develop indiscriminate trailings along the river corridors. Monitoring of the portage trails that have developed around several rapids on the East Fork Owyhee River suggests that it would take a relatively small amount of recreation use to cause a serious trailing and erosion problem of slopes in the canyonlands. These unconstructed trailings cause greater visual degradation than would a constructed and maintained trail system.

Implementation of off-highway motorized vehicle designations would help mitigate visual impacts on the Owyhee Front by prohibiting hill climbing activities at all but the Hemingway Butte site. The shift to a designated road and trail system in portions of the resource area should limit the steady expansion of the road and trail network that has visually degraded much of the Owyhee Front. Area-wide reduction of land in the open OHMV classification would help reduce cross-country motorized travel, and improve visual quality overall.

Open pit mining operations at the Stone Cabin and DeLamar Mines are visible from many areas within the Silver City area and Jordan Creek watershed (VRM Class II) and surrounding VRM Class III and Class IV lands. Impacts on visual quality vary within the region depending upon the viewer's elevation and slope aspect. When in full view of the mining operation, impacts on visual quality are significant in both the short term and long term, and can only be partially mitigated. Cumulative impacts on visual quality in the Snake River and Jordan Creek geographic reference areas from past and existing mining are already considered to be substantial. Localized visual degradation is projected to continue from ongoing mineral exploration and development activities in the Silver City Range. There is currently a low probability that mineral development of the magnitude of DeLamar and Stone Cabin mines would occur in other nearby mountains, as adjacent areas have been thoroughly explored and appear to have low mineralization.

While much of the Owyhee River geographic reference area is currently considered to have low mineral development potential, there is a low to moderate possibility that exploration activities could come to this region of the resource area and also cause an irreversible and irretrievable loss of visual quality. As with the steep slopes of the Owyhee Mountains, exploration activities could deface the canyon walls of the Owyhee River system which could not be completely rehabilitated, and would partially destroy what is considered by many a national scenic treasure. Only wilderness designation or the wild river designations prescribed in Alternative E would ensure the long-term visual resource protection of the North Fork, East Fork and South Fork Owyhee Rivers, and Deep-Current Creek by permanently withdrawing these public lands from mineral entry. For details concerning impacts of mineral exploration and development in the Owyhee Canyonlands, as well as analysis of development of a high voltage utility corridor, refer to the Owyhee Canyonlands Wilderness EIS.

Along the Owyhee Front, and in the Owyhee Canyonlands area, there is a low potential for the exploration of oil and gas resources. For the purposes of environmental analysis, the Owyhee RMP provides a development scenario relating to these resource uses. In both areas, oil and gas activities would introduce a series of small facilities to explore and extract discovered reserves. On the plateau surrounding the Owyhee Canyonlands, such developments would seriously contrast with the characteristic elements of the vast, open, relatively flat natural landscape. Viewsheds have the potential to be quite large. It is projected that 5,100 acres of plateau lands would have scenic quality substantially reduced by oil and gas activities in the scenario given in the Owyhee Canyonlands Wilderness EIS. Visual impacts could not be notably reduced by alterations in facility design and coloring. Along the Owyhee Front, rolling, highly convoluted peneplain topography could be used to mitigate the developments. However, because of their vertical character as compared to the somewhat horizontal character of the natural landscape found in the Owyhee Front as a whole, some level of substantial impact on visual quality is projected in very localized viewsheds.

The Owyhee Canyonlands Wilderness EIS also provides a development scenario for a high voltage powerline utility corridor through WSAs ID-16-49D and 16-52 lying just west of the Duck Valley Indian Reservation. In the alternatives presented in the wilderness EIS there are 10,330 to 10,760 acres of WSA lands where scenic values could be substantially reduced by powerlines in the absence of wilderness designation. The impact would be caused by the introduction of large, vertical, columnar forms and vertical lines of towers as well as surface disturbances from construction and maintenance roads into a vast, open, relatively flat plateau landscape. It is projected that an additional 25,000 acres of non-WSA lands could also be affected by utility corridor development. This visual impact could be mitigated or prevented by wild river designation for the East Fork and South Fork Owyhee River. In the absence of wilderness or wild river designations in the Owyhee Canyonlands region, utility corridor developments would be likely to cause severe, adverse visual effects on as much as 35,760 acres. Should fluid mineral exploration also occur on the plateau surrounding the Owyhee River, an additional 5,100 acres could have substantial adverse visual impacts during the exploration period, or for the long term if reserves are discovered. Locatable mineral activities in the canyonlands could also degrade highly scenic areas.

Conclusion

Implementation of Alternative E would achieve the visual resource management objective, but with site-specific exceptions. There would be short term degradation of the visual landscape from vegetation treatment projects, but over the long term the result of these projects would be positive. Visual degradation from mineral exploration and development activities would continue to occur. Range developments combined with recreational use (mostly OHMV activity) would cause localized adverse impacts that would eventually contribute to an overall slight decline in the scenic quality of the resource area. Though initially disturbing natural landscapes, the development of recreation facilities and range development projects would have some beneficial long-term impacts on scenic quality at specific sites. In the absence of wilderness or wild river designations in the Owyhee Canyonlands region, utility corridor developments and mineral exploration could have substantial adverse visual impacts in highly scenic areas.

Meeting the Objectives

Objective VISL 1: Manage public lands for visual resource values under Visual Resource Management (VRM) classifications.

Alternative E would fully meet this objective because it provides for a broad range of visual settings to compliment the resource area's recreational opportunities, including VRM Class I designations, to protect the highly natural and highly scenic areas of the resource area.

Cultural Resources

Change Agents

Scientific collection, mining activities, OHMV activities, vandalism, vegetation treatment projects, livestock grazing, wildlife habitat exclosures, streambank stabilization, acquisition and weathering and decay.

Impact Analysis

Planned actions which produce adverse impacts on cultural resource sites are limited by management procedures to scientific collection and excavation, and would only occur in situations where scientific research by an accredited entity (such as a university or other research organization) is permitted. These impacts would be mitigated, however, by the compilation of scientific data which are deemed to be significant by the archaeological profession. Beneficial impacts are produced by management strategies designed to preserve scientific data for future use, or for recreational or educational use. In Alternative E this latter category includes the protection accorded to the Oregon Trail and the existing Guffey Butte/Black Butte, Silver City and DeLamar National Register Districts.

Adverse impacts which occur to cultural resource values as a result of the implementation of projects generated by other resource activities are generally diminished by the performance of project specific cultural resource inventories in advance of project implementation. If it appears (as a result of a cultural resource inventory) that a cultural resource site would be adversely impacted by project implementation, the project would be redesigned to avoid the impact. Should this not be possible, adverse impacts would be mitigated by appropriate strategies, including scientific excavation and collection, depending on the significance of the site in question. A significant exception to this would come from projects conducted under the Mining Law of 1872. It is often not possible to respond within a reasonable time frame to potential adverse impacts caused by mining operations.

Adverse impacts on cultural resource values would also occur from natural weathering and decay.

Beneficial impacts on cultural resource sites could occur as a result of projects generated by other resources. Wildlife exclosures could have the effect of isolating a cultural resource site from adverse impacts from livestock grazing, riparian treatment plans could benefit cultural resource sites by providing streambank stabilization, restrictions on OHMV use could lessen the effects of vandalism, and lands actions taken to block up Federal land holdings could facilitate the management of large clusters of significant cultural resource sites.

Cultural resources are fragile and non-renewable, and adverse impacts are generally cumulative through time. Therefore, short-term impacts (such as a single occasion of vandalism) could increase in severity from natural forces (erosion, etc.) so that the long-term (20 year) effect increases in severity. In Alternative E a regular monitoring program would be established to determine physical conditions and mitigation needs of known sites. In addition, non-project related inventories would be conducted to identify and protect significant cultural resources in areas where little or no information is currently available.

Conclusion

Beneficial effects would be appreciable from actions taken to actively manage cultural sites, such as site monitoring to determine rate of deterioration, and the development of site treatment plans. Other beneficial effects would accrue as a result of the implementation of land treatment programs (riparian, wildlife exclosures, etc.) land exchanges and recreation program restrictions to OHMV. Fewer adverse impacts (than Alternatives A and B) would occur to the majority of sites known to be deteriorating from the effects of change agents, including livestock trampling, and natural forces.

The overall effect over the duration of the plan would be generally beneficial.

Meeting the Objectives

Objective CULT 1: Protect known cultural resource values from loss until their significance is determined.

5 years: This objective would be met.
20 years: This objective would be met.

Objective CULT 2: Provide special management emphasis for the protection and conservation of significant cultural resource sites and values.

5 years: This objective would be met.
20 years: This objective would be met.

Objective CULT 3: Increase the opportunity for educational, recreational, socio-cultural and scientific uses of cultural resources.

5 years: This objective would be met.
20 years: This objective would be met.

Hazardous Materials

Change Agents

Land use authorizations and mining activities.

Impact Analysis

The Bureau's approach to hazardous materials management on public lands in this and all alternatives (1) seeks to prevent the generation and acquisition of hazardous wastes; (2) is intended to reduce the amounts and toxicity of wastes generated; (3) provides for the responsible management of waste materials in order to protect the natural resources as well as the people who live and work on and those who use Bureau-managed lands; and (4) provides for aggressive clean up and restoration of Bureau lands that are contaminated by waste materials.

All proposed activities on public lands would be thoroughly analyzed as to whether materials potentially hazardous to the environment and the public welfare would be affiliated with the activity. A full disclosure of all hazardous materials, their use, storage, transport, and disposal would be required prior to authorization.

The largest hazardous materials site in the resource area is the DeLamar Mine. The cyanide heap leach pond and cyanide pond are on public lands and are permitted by the State of Idaho. Large quantities of chemicals and fuels are transported over Bureau administered roadways as part of this mining operation. Operation of the Stone Cabin Mine would require additional chemicals and fuels.

Conclusion

The overall impact of Alternative E on hazardous materials management would not be substantial.

Meeting the Objectives

Objective HAZM 1: Reduce the occurrence and severity of hazardous material incidences on public lands. This objective would be met.

Areas of Critical Environmental Concern

Change Agents

Relevant change agents for each area are listed below. The impact analysis for each of these change agents applies to those areas where identified. Impacts on specific areas are addressed where notable. See Table ACEC-4E for a tabular impact analysis summary.

- Guffey Butte/Black Butte Archaeological District: recreation use.
- Owyhee River Bighorn Sheep Habitat Area: livestock management, recreation use and OHMV activities.
- Boulder Creek Outstanding Natural Area: livestock management.
- North Fork Juniper Woodland Outstanding Natural Area: water developments, livestock management, fencing, recreation use and OHMV activities.
- Cinnabar Mountain: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Coal Mine Basin: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities and recreation use.
- Hells Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- Jump Creek Canyon: fencing, fire management, fluid minerals activities, mineral materials activities, recreation use and OHMV activities.
- Juniper Creek Watershed: livestock management, juniper removal, fire management, locatable minerals, recreation use and OHMV activities.
- Juniper Mountain: water developments, livestock management, fencing, recreation use and OHMV activities.
- Lambert Table: livestock management.
- McBride Creek: rights-of-way, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- Pleasant Valley Table: livestock management, fire management, fluid minerals activities and recreation use.
- Rooster Comb Peak: rights-of-way, juniper removal, fluid minerals activities and OHMV activities.
- Sinker Creek: rights-of-way.
- Sommercamp Butte: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- Squaw Creek: rights-of-way, water developments, livestock management, fencing, fire management, fluid minerals activities, mineral materials activities and OHMV activities.
- The Badlands: rights-of-way, water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.
- The Tules: recreation use.
- Upper Deep Creek: water developments, livestock management, fencing, juniper removal, fire management, fluid minerals activities, mineral materials activities, locatable minerals activities, recreation use and OHMV activities.

Impact Analysis

Excluding rights-of way within WSAs, areas with high scenic or biological values, areas that are currently unroaded and areas where roads would cause severe degradation would have a beneficial impact on these environments. Scenic and biological qualities would be maintained by precluding ground disturbance and aerial obstructions. Managing some areas for rights-of-way "avoidance" would have no adverse impact. Such areas typically have existing roads or radio towers within their boundaries. The "avoidance" constraint allows existing facilities to be maintained and encourages other route selections for new projects. In Alternative E, nine areas would have additional rights-of-way constraints compared to Alternative A. This is projected to have a long-term beneficial impact on these areas.

In Alternative E, 45 spring developments, 19 reservoirs, and 10 miles of pipeline and associated troughs are identified. This is identical to Alternative A except for the seven additional miles of pipeline proposed in this alternative. However, the restrictions on water development placement identified for the thirteen areas would have either no impact or a beneficial impact on the identified values. Botanical, wildlife and scenic resources would generally benefit from restrictions or prohibitions on water developments, as ground disturbing actions and new livestock concentration areas would be precluded. Weed introductions would be minimized as would conflicts with special status plants. Scenic values would be maintained by restricting the potential for visual intrusion. In areas where water projects could still be developed, adverse impacts on botanical and scenic values would be both short- and long-term.

The overall impact of prohibiting or restricting salt placement and grazing use would generally be beneficial for the vegetative, scenic, and wildlife resources of the thirteen proposed areas. Better control over salt placement would prevent trampling and soil compaction from degrading sensitive resources. Prohibiting livestock from a portion of Jump Creek Canyon, a portion of McBride Creek, The Tules, and Squaw Creek, and restricting livestock use in areas recognized for their botanical resources, would increase the value of such areas as rangeland reference areas and RNAs. Long-term benefits are projected to be positive for the various special resources identified.

Restricting the construction of pasture fences that could potentially increase grazing use in a given area would have a long-term beneficial impact on the vegetative and scenic qualities of the areas. Short-term adverse impacts to vegetation would occur during and immediately following any construction that might be done, but over the long-term, the vegetation is expected to benefit as accompanied by implementation of grazing practices designed to meet Standards for Rangeland Health. If not carefully positioned, the scenic qualities of some areas would be adversely impacted by pasture fence construction. Restricting or prohibiting exclosure development would have a beneficial impact on the areas, as exclosures would be built only if they excluded livestock or lowered the grazing use of the area, and did not alter the scenic quality. Twenty-four miles of exclosure fence and fifty-two miles of pasture fence are identified under Alternative E. The overall impact is expected to be similar to Alternative C. Impacts are expected to be beneficial.

The discussion of juniper removal is not applicable to eight of the twenty areas, and has been identified as a Change Agent for only four of them - Juniper Creek Watershed, Rooster Comb Peak, The Badlands, and Upper Deep Creek. Of these four, only The Badlands is proposed as an ACEC under this alternative. Prohibiting juniper cutting or burning in this area would have a beneficial impact on its high scenic values, and would also benefit the special status plant species and RNA/rangeland reference area qualities for which The Badlands has been recognized. In Alternative E, 47,500 acres of juniper are identified for burning, 8,200 fewer than in Alternative A. The same number of acres (17,000) are identified for cutting in Alternatives A and E.

Fire management actions would be restricted and in some cases prohibited in Alternative E. A generally beneficial short-term and long-term impact is projected. By restricting fire suppression to those instances where life or property are threatened, natural plant recovery would be allowed to occur. This is consistent with the RNA management concept where relatively unaltered areas are treated as "control" or reference sites for evaluating resource management practices, for conducting research and for educational purposes. Populations of special status plants, many of which occur in sparsely vegetated habitats, would benefit from restrictions on fire suppression activities which could be highly destructive to some populations. Scenic values would be maintained by limiting the use of heavy equipment which often leaves major scars. Restricting fire vehicle use to existing roads in those areas where roads are present would provide for protection of facilities both on site and on adjacent ground, while providing for resource protection.

Fire rehabilitation restrictions would have a beneficial impact on the thirteen areas. Except under threat of severe erosion where sites were already dominated by exotics, and where the principal resource (i.e., special status plants) can be avoided, no seeding would be permitted in order to allow natural regeneration of high ecological condition sites. If severe erosion or invasion by annuals of special status plant sites is projected, seed or seedlings of native species may be used for rehabilitation of these problem areas by aerial or hand planting methods only. Alternative E provides for the determination of rehabilitation suitability on a site specific basis.

In Alternative E, the constraints (closures) on fluid minerals activities in six additional areas (Cinnabar Mountain, Jump Creek Canyon, McBride Creek, Pleasant Valley Table, Squaw Creek, The Badlands) would have either a beneficial impact or no impact on the identified values in each of the areas. No impact would occur in existing ACECs or special management areas where fluid mineral constraints are currently in place. While fluid mineral development is unlikely in most of the areas given their geology, closures and no-surface-occupancy constraints are proactive measures that would preclude the potential for exploration disturbance, a more likely scenario.

Constraints on mineral materials activities would yield short-term and long-term beneficial impacts. Closures to mineral material disposal would best protect the botanical, wildlife, scenic, and cultural resource values requiring special management, given the uncertainty of future mineral material needs and technological advances.

Locatable minerals constraints would have a beneficial long-term impact on the scenic, wildlife, and botanical resources within the areas identified for special management. The few areas not recommended for withdrawal from mineral entry would be beneficially impacted in that designation as an ACEC requires the development of a plan of operation for all mining disturbances including those less than five acres. Plans of operation permit a greater measure of protection for all resources since resource-protecting stipulations would be included. Withdrawal was not sought for Cinnabar Mountain, as a validity examination (part of the withdrawal process) would likely find the mineral value of this area to be of uncommon variety, and a withdrawal could not be authorized under the existing mining law. Withdrawal was sought in areas with concentrations of special status plant species where mineral validity is uncertain. If determined invalid the land could be withdrawn and the species protected. However, if determined valid, the claims could be mined and impacts would be adverse over the long-term.

Under this alternative, an additional 119,555 acres of SRMA land would be incorporated into the existing SRMAs. SRMA increases would affect Guffey Butte/Black Butte and possibly Squaw Creek. Habitat deterioration from increased human use would be expected to occur. Wildlife displacement and increased disturbance and removal of cultural artifacts would increase with an increase in use over the next twenty years.

Designation of 163 miles of river as national wild, scenic, or recreational, 69 miles more than Alternative A, would affect the North Fork Juniper Woodland, the Owyhee River Bighorn Sheep Habitat Area, and The Tules. Long-term impacts are expected to be adverse due to increased public use, although these areas would also benefit from the mineral withdrawal associated with congressional river designations. River management and interpretive efforts would be increased, also helping offset some of the adverse impacts associated with increased use.

Designated OHMV routes would be established in Guffey Butte/Black Butte, Owyhee River Bighorn Sheep Habitat Area, Boulder Creek, Cinnabar Mountain, Coal Mine Basin, and Sommercamp Butte. Areas that would be closed to OHMV access all currently have no existing roads or trails (Jump Creek Canyon, McBride Creek, North Fork Juniper Woodland, Pleasant Valley Table, Squaw Creek, The Badlands, The Tules). This would have a beneficial impact on all thirteen areas. The good or excellent condition plant communities, wildlife, scenic and wilderness qualities, and special status plant species would all benefit. As recreational use of the Owyhees increases, Alternative E would preclude the development of access roads or trails into currently unroaded areas, and discontinue use in those that are particularly sensitive. Due to the topography (i.e. deep canyons unsuitable for OHMV use) of some areas, a "closed" OHMV designation would have minimal impact on the OHMV user. Changing the OHMV designation from "open" or "limited" to "designated" would minimize the potential development of new roads and trails, but allow maintenance activities and access to continue.

Conclusion

The overall impact of Alternative E on the areas is projected to be beneficial. Special management actions that control adverse change agents would be implemented.

Meeting The Objectives

Objective ACEC 1: Designate Areas of Critical Environmental Concern (ACECs) where relevance and importance criteria are met and apply special management to protect the values identified.

This objective would be met on 13 out of 20 areas in Alternative E. The 13 areas meeting the relevance and importance criteria would be designated and special management actions to protect the identified resource values would be implemented.

Social and Economic Conditions

Change Agents

Population and recreation growth, livestock grazing levels and social structure.

Population Impacts

Greater Idaho's population is projected to increase throughout the next 20 years. Population growth has been a dynamic force in the current economic growth in southwestern Idaho. Between 1990 and 1993, regional population has grown by 37,700 or 11.3% within the four-county region of Ada, Canyon and Owyhee Counties in Idaho and Malheur County in Oregon (Bureau of Economic Analysis, Regional Economic Information System). However, population growth has taken on new dimensions, including quality of life considerations, here in this latter part of the 20th century. Recent migration has been toward smaller urban or rural areas and away from the large overcrowded metropolitan areas. Quality of life factors such as lower taxes, less inflation, lower crime rates, economic boom and leisure and recreational opportunities are sighted as reasons for this migration trend. This has resulted in increased pressure on the public land to provide a socially acceptable mix of land uses; away from consumptive use toward more nonconsumptive or preservation and retention in the public domain. The Owyhee Resource Area will continue to see increased pressure as regional population growth from nearby Ada and Canyon Counties drives demand for alternative, and often conflicting, uses of these public land resources. Thus, the present dynamic that is causing the change in the rural/urban interface will continue to put pressure on the historical use of the public land resources and BLMs management of those resources in the future.

The following impact analysis is based on the modeling of ranch budgets for typical ranch operations within Owyhee County and computer modeling using input/output analysis of the regional economy for Owyhee, County, Idaho as discussed in Chapter 3 and in the appendix. (See Appendix SOCE-2 for a short summary of the modeling technique used in this impact analysis.)

Ranch Level Impacts

Increases in the number of Animal Unit Months (AUMs) permitted for livestock grazing (96,676 AUMs to 105,899 AUMs, or 9,223 AUMs) will have positive economic impacts on the ranch community in general. Average income above operating costs under this alternative would increase for two of the three types of ranch operations (see below).

Ranch Operating Impacts

	Per Ranch Average	Total
Jordan Valley	$ 700	$ 26,700
Marsing	$ 0	$ 0
Bruneau	$ 125,200	$ 250,500
Total		$ 277,200

County Economy Impacts

Direct and indirect output into the economy would increase by $357,000 under this alternative. Regional income would increase by $119,000 and total employment would increase by 3.

County Level Impacts

Total Industry Impact	
Direct + Indirect	$357,000
Total Value Added	$133,500
Total Regional Income	$119,000
Total Economic	$490,600
Total Employment	3

Recreation Impacts

General recreation activity is projected to increase approximately 70% between 1998 and 2018. However, it is not suggested that the increased recreation activity would be in response to BLM actions, rather, the regional population growth would be the root cause of any additional recreational activity on the public lands in the planning area. Very little of this activity will translate into increased economic activity within the county since most goods and services associated with recreational activities within Owyhee County are purchased outside the county. In fact there may be added costs to Owyhee County's budget for increased search and rescue and law enforcement activities.

Social Impacts

Economic pressures on the ranching and rural communities within Owyhee County will continue to grow as external forces (i.e., regional population growth; regional economic growth; and financial institutional change) continues to mount. However, this alternative, by itself, should not have an appreciable social impact. This alternative should provide some stability to the ranch community and have the same affect on the rural communities since it allows for continuation of grazing activities at the present level.

Conclusion

Positive impacts are projected for the local/regional economy because of increases to regional output of goods and services, and employment. The impact is not projected to be significant enough to cause financial hardships for the local or regional infrastructure to handle increased demand. Social services and other factors that currently contribute to the quality of life locally and regionally would not be significantly affected.

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Summary of Key Public Involvement Events

10-11-89 Federal Register Notice of Intent to initiate a resource management plan and prepare an environmental impact statement and invitation to participate in the identification of issues (scoping).

11-20-89 Newsletter inviting public participation in planning process sent to mailing list (1,100). 60-day comment period identified. Announcement of three public scoping meetings.

12-18-89 Public scoping meeting in Jordan Valley, Oregon. 26 attended.

12-19-89 Public scoping meeting in Marsing, Idaho. 29 attended.

12-20-89 Public scoping meeting in Boise, Idaho. 40 attended.

01-19-90 Comment period for scoping extended 30 days until 2-23-90. 164 comment letters received during scoping.

11-15-90 Proposed planning criteria sent to revised mailing list (600) for review. 16 comment letters received.

02-07-91 Planning criteria approved by District Manager.

02-14-91 Approved planning criteria mailed to 16 commentors.

05-09-91 Preliminary findings of the wild and scenic river eligibility inventory sent to mailing list (120) for review. Public information meeting announced.

05-21-91 Public information meeting in Boise, Idaho for the preliminary findings of the wild and scenic river eligibility inventory. 50 attended.

01-24-92 Desert Group met with BLM staff to discuss National Conservation Area proposal.

06-04-92 Newsletter inviting public participation and inviting comments on potential ACEC designation of approximately 788 acres in southeastern Oregon. Sent to mailing list (117). 30-day comment period identified.

06-11-92 Notice of Intent to prepare an amendment to the Northern Malheur Management Framework Plan and invitation to participate in the identification of issues (scoping) regarding potential ACEC designation of approximately 788 acres in southeastern Oregon. Land are contiguous with 1,618 acres in southwestern Idaho being considered for ACEC designation. Documentation to be included in the Owyhee RMP effort.

02-10-93 Desert Group invited to develop an alternative and briefed on process.

02-22-93 Owyhee County Commissioners invited to develop an alternative.

03-05-93 Owyhee County Natural Resources Committee briefed on alternative development process.

06-30-93	Desert Group submitted preliminary alternative to BLM.
07-27-93	Meeting between Desert Group and BLM to discuss Desert Group alternative.
12-17-93	Owyhee County Commissioners submitted preliminary alternative to BLM.
02-17-94	Meeting between Owyhee County Natural Resources Committee and BLM to discuss Owyhee County alternative.
02-20-94	Desert Group submitted revised alternative to BLM.
02-24-94	Desert Group submitted final comments on their alternative to BLM.
03-28-94	Owyhee County submitted revised alternative.
08-1-94	Copies of respective alternatives sent to Owyhee County and Desert Group.
11-14-94	County provided comments on material sent on 8-1-94.
01-17-95	Meeting with County to discuss their alternative.
01-24-95	Owyhee County indicated inconsistencies between preliminary draft document and the Owyhee County Interim Land Use Plan.
02-09-95	Meeting with County to discuss their alternative.
04-15-95	County submitted final comments on their alternative.
08-16-96	Federal Register Notice of Availability of Draft Owyhee Resource Management Plan and Draft Environmental Impact Statement for public review and comment. 90-day comment period to close November 15, 1996. 600 copies mailed.
10-18-96	Announcement mailed for three public meetings to be held in Murphy, Idaho, Jordan Valley, Oregon and Boise, Idaho on November 12, 13 and 14 respectively.
11-08-96	Federal Register Notice to extend public comment period on Draft Environmental Impact Statement until January 3, 1997.
11-12, 11-13, 11-14-96	Three public information meetings held in Murphy, Idaho, Jordan Valley, Oregon and Boise, Idaho to assist public in providing comments on draft document.
11-14-96	Letter received from Idaho Congressional delegation requesting to 1) extend public comment period by six months, 2) publish additional copies of the document, and 3) utilize the University of Idaho to facilitate public workshops.
12-17-96	900 copies of document mailed to publics who requested copies. An additional 1,000 copies ordered from printer.
12-23-96	Federal Register Notice to extend public comment period on Draft Environmental Impact Statement until July 3, 1997.

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01-07-97 Began mailing 1,000 additional copies of draft document.

05-06-97 1,850 notices mailed announcing workshops on May 22 and May 23 in Nampa, Idaho and inviting participation.

05-14-97 Additional information relating to workshops mailed to 1,850 addresses.

05-22-97 and 05-23-97 Workshops facilitated by the Martin Institute (University of Idaho) held in Nampa. 4 sessions held with a total of about 200 participants.

07-3-97 Close of public comment period. Total comment period was 10' months. Total of 2,598 written comments received.

08-20-97 Martin Institute submited workshop report to BLM.

03-04-98 through 03-06-98 Martin Institute (University of Idaho) met with public to discuss workshop input and public comments received on Draft Owyhee Resource Management Plan and Draft Environmental Impact Statement.

03-15-98 Martin Institute submits written comment report to BLM.

04-22-98 BLM enters into agreement with University of Idaho for preparation of a Socio-Economic Assessment of Owyhee County for incorporation of data into final EIS.

Agencies, Organizations and Persons Consulted

During the planning process the following were contacted:

Idaho Department of Fish and Game
U.S. Fish and Wildlife Service
Owyhee County Commissioners
Owyhee County Natural Resources Committee
Desert Group

Agencies, Organizations and Persons on Mailing List

The mailing list for this Proposed Owyhee RMP/Final EIS includes over 2,000 entries including interested persons, organizations, Indian tribes, livestock permittees, and local, State and Federal agencies. The mailing list is on file at the Boise Field Office. The following list is representative of the entities on the mailing list:

Elected Officials
Idaho Congressional Delegation
Idaho Governor
Idaho Attorney General
Representative Francis Field
Representative Jim Jones
Owyhee County Commissioners
Owyhee County Sheriff

Native Americans
Paiute Tribe (Burns)
Shoshone-Paiute Tribes (Duck Valley)
Shoshone-Bannock Tribes (Fort Hall)
Shoshone-Paiute Tribes (McDermitt)

Agencies
Idaho State Historic Preservation Office
Idaho State Historical Society
Idaho Department of Agriculture
Idaho Department of Fish and Game
Idaho Department of Health and Welfare
Idaho Department of Lands
Idaho Department of Parks and Recreation
Oregon Division of State Lands
University of Idaho
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service

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Organizations
Animal Protection Institute
Audubon Society
Blue Ribbon Coalition
Committee for Idaho's High Desert
Desert Raiders Motorcycle Club
Friends of the Mustangs
High Desert Coalition
Idaho Bird Hunters
Idaho Cattle Association
Idaho Conservation League
Idaho Farm Bureau
Idaho Gold Prospectors Association
Idaho Museum of Natural History
Idaho Natural Areas Coordinating Committee
Idaho Rivers United
Idaho State Snowmobile Association
Idaho Whitewater Association
Idaho Wildlife Federation
Idaho Wool Growers Association
Land and Water Fund
Owyhee County Historical Society
People for the West
Southern Idaho Desert Racing Association
The Desert Group
The Wilderness Society
Treasure Valley Trail Machine Association

Others
Livestock permittees
Interested individuals

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Public Comment and Responses

BLM received nearly 2,600 comment letters containing nearly 5,000 different comments during the 10 month comment period. Additional workshop comments received from about 200 participants totaled nearly 1,500 different comments. All of the comments were analyzed by the Martin Institute, University of Idaho and reports were submitted to BLM. The purpose of the reports was to facilitate efficient access to the voluminous information contained in the 10,000 pages of public comments submitted. The 6,500 different comments were placed into 186 topic categories and coded for referencing. The public comment report, the workshop report and the public comment letters are on file at the BLM, Lower Snake River District Office.

A total of 2,799 commentors (201 from the Nampa workshops, 2,598 written comments received by BLM) provided 6,373 different comments (1,495 workshop, 4,878 written). All comments were placed in one of 186 separate categories by the Martin Institute to facilitate access to the voluminous information.

Comments were reviewed by the BLM planning team according to guidance in the BLM NEPA Handbook and regulations for implementing NEPA (40 CFR 1503.4). Comments are addressed in the following section if they: are substantive and relate to inadequacies or inaccuracies in the data, analysis or methodologies used; identify new impacts or recommend reasonable new alternatives or mitigation measures; or involve substantive disagreements on interpretations of significance. Comments were considered and appropriate revisions were incorporated into this document, including formulation and analysis of the preferred Alternative E (proposed plan).

Because of the large volume of comments received, the actual comment letters are not published. The comments are summarized and in cases where comments were similar, comments have been combined and paraphrased to capture the concerns expressed. The comments and responses are grouped within resource categories with a comment topic for each comment to assist in locating areas of concern or interest.

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AIR QUALITY RESOURCES

- Acres of prescribed fire in Alternative C

Comment: What is the rational for the number of acres of prescribed burns in Alternative C.

Response: The amount of prescribed burning proposed by the Bureau in its alternatives is based on estimates of funding, manpower, and areas where fire, as a management tool, will be most successful in accomplishing resource objectives.

- Wind erosion and air quality

Comment: The plan needs to address soil erosion by wind and its subsequent affect on air quality in relation to livestock and OHMV actions in more detail.

Response: Erosion by wind is a natural component of any ecosystem. Certain soil types (mostly dependent on soil particle size and structure) are more prone to erosion by wind than others. Any action that either exposes these soils to the erosive force of the wind and/or alters the soils natural structure (breaking soils down to individual particles) will accelerate this process. Livestock grazing and OHMV use mechanically breakdown soil structure and decrease the vegetative cover thereby increasing the susceptibility of certain soils to increased wind erosion.

- Impacts of fire on air quality

Comment: The plan needs to more adequately address the impacts of prescribed burning and wildfire on air quality.

Response: These have been included in the Air Quality sections - Chapter 3 and Chapter 4.

- Air quality monitoring

Comment: How will the Bureau adequately conduct monitoring and management of emissions from prescribed burning so that federal and state air quality standards are not exceeded.

Response: Currently there is no smoke management plan developed by the State of Idaho DEQ for the RMP area. Each prescribed burn will be analyzed during the pre-burn process. This analysis will include fuel loads, type of material, moisture content of material, the topographic airshed that will be affected, and the climatic conditions projected for the time of the burn. This information can be modeled to determine the extent of emissions and compliance with NAAQS. A prescribed burn plan will be developed for each burn that will include the details necessary to fully analyze the impacts of the action. Many of these concerns have been included and addressed in Air Quality Chapter 3.

- Clean Air Act revisions

Comment: The document needs to be updated to reflect changes in the Clean Air Act and subsequent air quality standards.

Response: These have been included in Air Quality Chapter 3.

- Rationale for prescribed burning on rangelands

Comment: What is the rationale for conducting prescribed burning in rangeland situations and its overall impacts on air quality.

Response: Prescribed burning in rangeland situations would be used to control areas of juniper invasion or to decrease the amount of brush in an area in order to create a better stand of perennial native grasslands. In many cases the process of burning these stands help remove undesirable competition (for nutrients, energy, and moisture), creates a source of nutrients (from the ash) for the successional plants, and can increase seedling establishment in future years. Where native rangelands are treated by this method there could be a short-term impact to the resource in the form of erosion (both water and wind), air quality (wind blown dust/

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soil), loss of habitat, and the potential for other undesirable species to establish. The long-term benefits of these treatments are increased watershed function and protection (including downstream in terms of flooding), increased forage, and less intense future fires. Historically wildfire occurred in these areas at intervals that maintained a healthy ecosystem. With the era of fire suppression this natural process has been eliminated from these areas.

SOIL RESOURCES

- Microbiotic crusts

Comment: The plan needs to address the impacts to microbiotic soil crusts by various activities in the analysis of all alternatives.

Response: The impacts to microbiotic soil crusts has been included in parts of the soils sections. The BLM does recognize the importance of these organisms to the ecological community. In many cases the BLM believes that management actions that promote healthy riparian areas and increase upland vegetation conditions would also benefit microbiotic soil crusts.

- Streambank Impacts

Comment: The impacts to streambanks where there are effective grazing systems proposed needs to be addressed more fully in the plan particularly in alternative B where these grazing systems are emphasized.

Response: This has been corrected in the document. In areas where streambanks are at risk and there is not a current effective grazing system, and until one is implemented, streambanks would continue to degrade. In areas where approved/effective riparian grazing systems are implemented it is expected that streambank problems would improve.

- Juniper treatments

Comment: There are many concerns regarding juniper invasion and proposed treatments with regard to soil erosion/watershed relationships. The plan needs to address this issue better. It seems that where there are more treatments in juniper invaded areas that there should be an improvement in the watershed condition.

Response: Chapter 3, the Affected Environment , Soils section has been rewritten to address the concerns of juniper invasion on erosion rates in the RMP area. Much of the research on juniper invaded watersheds in the 13 inch and above precipitation zones shows little change in watershed condition. The amount of forage produced does increase in the treated areas. Most of these watersheds in these precipitation zones in the RMP area are very stable from a watershed perspective (no signs of active erosion or accelerated broad based soil loss) and a change in vegetative community of this nature would not make a significant affect in watershed function.

- Desertification

Comment: There has been concern that the use of the term desertification in the document may not be scientifically correct. It should not be used in this these areas in the west.

Response: Chapter 3, the Affected Environment, Soils section has been rewritten to address the concerns regarding the use of the term desertification. The United Nations Environment Programme (UNEP) defined desertification as the diminution of the biological potential of the land that could lead to desert-like conditions (Mabbutt, 1985). Most references conclude that the process is caused by anthropogenic factors exacerbated by drought (and climatic variations). "de Soyza (1998) describes desertification in the western United States as a change in scale of the spatial distribution of water, nutrients, and other resources. Desertification often results in a dysfunctional system in which the mean residence time is reduced for resources entering the ecosystem or being produced by it. For example, barren intershrub spaces generate overland flow and provide no impediment to wind. The result is soil erosion and nutrient losses for the ecosystem."

[redacted]

- Soil management actions

Comment: There is a list of soil management actions at the end of the soil section in Chapter 3, is this the appropriate place to list these. These actions seem more like restrictions to certain uses than management actions.

Response: This section of the document has been taken out and addressed in the Soils management actions section of the referred Alternative E.

- Soil erosion rates

Comment: The erosion rates analysis in Alternative B (projected increases and decreases of erosion rates) relative to planned actions does not realistically reflect the intent and management actions proposed please review this analysis. Under alternative B no increases in consumptive use would be allowed if it degraded the environment.

Response: This discussion of erosion rates in Alternative B has been rewritten to more clearly depict the type and area of this impact. The information supplied to our office relative to the management actions outlined for Alternative B do not give specific enough information on range improvement projects (i.e., seedings) to assess how much of these projects are projected for the area under 3,500 feet in elevation (the low elevation areas draining into the Snake River).

- Water developments

Comment: The number of water developments proposed in alternative B is incorrect. The potential impacts to the soil resource from water developments needs to be addressed the same for all the alternatives .

Response: The document has been revised to reflect the accurate number of water developments. The potential impacts to the soil resource from water developments has been addressed the same under each alternative and is not related to the number of developments projected.

- Vegetation treatments

Comment: Both the short and long-term impacts of vegetation treatments on the soil/watershed resource needs to be addressed in more depth in the plan. There are many negative impacts that occur as part of these treatments that the public needs to be aware of.

Response: The sections in Chapter IV that address vegetative treatments have been revised to better reflect the short and long-term impacts to the soil/watershed resource from these actions. Before actual treatments are implemented on the ground a project specific plan will be completed and a more detailed assessment of both short and long term impacts will be developed at that time.

- Soils objectives

Comment: The soil objectives need to be rewritten to better reflect the reality of what can be accomplished and measured in the plan. The objectives reference to late seral stages of ecological condition are unrealistic.

Response: The soil objectives have been revised to better reflect the Bureau's implementation of Standards for Rangeland Health and Guidelines for Livestock Grazing Management. Instead of basing the soil objectives on elevation changes and vegetative ecological conditions or trends a watershed condition/health parameter is used. Along with the revision in objectives the management actions under the new objectives have been revised to reflect meeting the new objective and to be consistent with the new standards and guidelines identified above. The alternatives in chapter IV have been reevaluated in light of these revised objectives and new conclusions drawn.

[redacted]

- Soils management actions Alternative C

Comment: Why are the management actions listed in the Soils Alternative C sections aimed primarily at riparian management and not upper watershed management.

Response: Management actions developed under Alternative C include the development of grazing systems that would benefit riparian areas and in turn promote better conditions on the upland sites. The implementation of the July 15 end-of-grazing-season constraint would also allow native vegetation on the uplands to increase in vigor, provide more surface litter, allow microbiotic crusts to increase, and decrease the impacts of livestock on the mechanical nature of the soils.

-Time-frames for grazing systems in Alternative C

Comment: Time-frames for the approval and implementation of grazing systems under Alternative C, within two years, are unrealistic. It appears the Bureaus is mandating the July 15 off date under this alternative.

Response: The Bureau realizes that the time frame for approving and implementing grazing systems under Alternative C would be very difficult. Under Alternative E, the preferred alternative, the time frames for implementation of these grazing systems has been revised to better meet the needs of our public.

- Impacts of wildlife and wild horses on riparian areas

Comment: The plan needs to address the impacts of wildlife and wild horses on riparian areas and subsequent actions that would be taken if these sources are negatively impacting these areas. The plan appears to be biased toward livestock in these areas.

Response: The impacts of wildlife and wild horses on riparian vegetation is taken into account in the development of the management actions. In the vast majority of the cases where problems have been identified there is a direct link to either past or current livestock management practices. The impacts of wildlife on riparian condition tend to be very minor. Where wild horses concentrate on an area and are responsible for these same conditions management actions would be taken (i.e., reduce herd numbers, fencing) to correct the problem.

- Six inch residual stubble height

Comment: What is the scientific proof and rational for the six inch residual stubble height in Alternative C. There is a great body of research out there that contradicts this stubble height requirement.

Response: The topic of stubble height is a much debated one in the professional arena. The 6 - inch residual stubble height outlined in Alternative C is only required where there is no approved and implemented grazing system in place for pastures that have riparian areas categorized as unsatisfactory, nonfunctioning, or functional-at-risk. It was incorporated because it was the most accepted standard for stubble height at the time this section of the document was formulated. Stubble height requirements have been revised in Alternative E to better reflect the current accepted standards (Idaho Agricultural Pollution Abatement Plan) and comply with Bureau standards and guidelines.

- Brush control and seeding below 3,500 feet

Comment: Why are there no plans for brush control and seedings on lands below 3,500 feet in the Bureau's alternatives. If the Bureau is planning on improving watershed condition on these areas it seems logical that seedings would be a component of improvement efforts.

Response: Under alternative E the option for brush control on lands below 3,500 feet has been included. No seedings have been planned in the Bureaus alternatives on these lands due to the poor success of seedings in these low elevation, low precipitation, and marginal soil zones. Seedings may be implemented as part of future wildfire rehabilitation actions but they would be site and fire specific.

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- South Mountain and Swisher Springs allotment erosion potential

Comment: Why do the South Mountain and Swisher Springs allotments have high erosion potential as a resource concern in Appendix A-17 when the table SOIL 1 does not list these allotments as having high erosion potentials.

Response: All allotments have been reevaluated for erosion hazard potential in Appendix A-17 Allotment Management Summaries. The South Mountain and Swisher Springs allotment no longer have high erosion potential as a resource concern.

- OHMV impacts on soils/watershed

Comment: It appears that the statements in the plan relative to the impacts of OHMV activity on the soil/ watershed resource are biased and exaggerated against OHMVs. These statements give the reader the impression that OHMV use occurs on every square foot of ground.

Response: The statements relative to OHMV impacts are a true representation of that action. The intent of this section is not to lead the reader to believe that this activity is occurring on every square foot of ground but to make the reader informed of the impacts of this activity on the soil resource where use does occur. It is well documented in the scientific community that roads and trails are one of the leading sources of accelerated soil erosion on the landscape. Regular maintenance of these features and proper season of use will help reduce this impact.

- Erosion rates relative to rock outcrop and soil type

Comment: What percentage of the slopes analyzed in the potential soil erosion hazard determination are rock outcrop? What are the differences in the types of soils and their erosion rates?

Response: There was no determination made as to what percentage of the slopes analyzed in the soil erosion hazard determination were rock. Appendix SOIL -1. Soil Erosion Hazard Analysis explains the process used to develop this data. The percentage of true rock outcrop on the steep slopes (those greater than 30 %) in the RMP area is small.

- Watershed condition defined and assessed

Comment: What is meant by watershed condition and how will it be assessed and monitored as related to soil Objective 1.

Response: For the purposes of this document watershed condition is defined in terms of the health/ functionability of the watershed. The components of importance are having adequate amounts of ground cover (this includes canopy cover, litter cover, and soil stabilizing microbiotic soil crusts), determined on an ecological site basis, to support infiltration, maintain soil moisture storage, and stabilize soils. Also addressed is the need to maintain or promote watershed conditions that support permeability rates, minimize soil compaction, and stabilize channel function.

Watershed specific management and monitoring is beyond the scope of this document and will be included and addressed in more detailed planning efforts such as watershed assessments , AMPs, and specific watershed management plans. Watersheds that will be monitored will be prioritized as part of the above mentioned planning processes. In many cases some of the same monitoring techniques used to monitor vegetational attributes can be used to help assess watershed condition (i.e., canopy and litter cover assessments). As part of the determination process for implementing rangeland standards and guidelines a watershed assessment worksheet will be utilized that looks at surface erosion, litter, and a number of other attributes. In other cases more soil specific monitoring may be implemented such as use of the 3-F Erosion Bridge.

- Localized soil erosion defined and assessed

Comment: How is localized accelerated soil erosion defined in the document and how will it be assessed?
Response: The soil objectives have been rewritten to better address their intention. Objective SOIL 2 now addresses localized accelerated soil erosion. Localized accelerated soil erosion is where humans, by their actions, are responsible for the site specific erosion process. These are sites where there is a very specific cause/effect relationship to soil impacts. Examples would be road construction, mining operations, or specific watershed sites impacted by livestock (i.e., streambanks). The management actions related to these sites will be addressed in site specific environmental planning documents (Environmental Assessments, Leases, Permits, etc.) and are beyond the scope of this planning document. Each site and type or potential impact to the soil resource is different and the BMPs or other actions relating to prevention of the impacts need to be assessed at that time. Through project inspection, site monitoring, and other oversight activities the Bureau will assure compliance with the objectives. For some actions, regulatory oversight would be required to meet compliance with other Federal or State regulations. In these cases, the Bureau may play a secondary role to the regulating agency.

- Soil erodibility factor, K, and the Revised Universal Soil Loss Equation

Comment: Is the soil erodibility factor, K, that is discussed in the document the same as that used in the Revised Universal Soil Loss Equation (RUSLE) and how were the estimates of soil erosion, increases or decreases, presented in the alternatives developed.
Response: In determining erosion potential the Bureau used the NRCS-derived soil erodibility factor, K, in its analysis. The assumption was made that soils with a soil erodibility factor (K) of .43 or greater would be considered to have a high potential for erosion by water. This analysis was only used to determine, on a resource area basis, the potential for erosion for these soils and does not reflect any actual erosion on the ground.

In making estimates for the alternatives on the impacts to the soil resource a number of factors were considered. The main factor was how the actions would affect the amounts of ground/canopy cover (including such things as microbiotic soil crust health and vegetative litter), determined on an ecological site basis, to support proper infiltration, maintain soil moisture storage, soil productivity, and stabilize soils. Other things considered were the effects of surface soil disturbance, soil compaction, and channel stability.

In the initial analysis work for the RMP/EIS the author utilized the Revised Universal Soil Loss Equation (RUSLE). Analysis was performed by leaving all the factors in the equation the same except for the cover factor (C) which was either increased or decreased according to the projected impacts to the vegetative resource. This information was used only as a guide in making some of the early assessments for the alternatives. The RUSLE itself is not a perfect or even very useful tool for making soil erosion predictions on native ranglands. There has been much research time and money spent trying to make this tool more acceptable for rangeland use without much success. The actual numbers for the projected soil erosion off of a specific site has not proven to be very accurate but if one changes only the C factor in the same analysis then the difference between the two analysis can reflect a difference in the management action that was responsible for the C factor difference. This information can be helpful in making estimates on such a large scale basis.

- Climatic trends relative to studies and environmental impacts

Comment: If climatic trends of 8-20 years are valid for the studies sited in the plan relating ecological damage, why not in relation to trends in climate and climatic conditions impacting the same environment? And how does this relate to desertification comments made in SOIL Section 3?
Response: The response for the desertification issue is answered in the "Use of the term desertification in the document" section of these comments.

Trends in both studies relating to ecological damage and in the effects of climatic conditions impacting the environment over the past twenty years are both valid for assessment of the resources in this document. They have been incorporated where appropriate in Alternative E.

- Rain drop impact on soils

Comment: The plan contains statements about rain drop impact on soils. The statements should read that this causes loss of permeability or reduced percolation rates, not increased compaction, please elaborate.

Response: Rain drop impact effects soil in a number of ways. When a rain drop strikes the soil it can detach soil particles which then are free to move with overland flow. Some of these detached soil particles will seal existing soil pores thereby reducing permeability and increasing the existing overland flow. If the duration and intensity of the rain fall is such that there is a pounding effect on the soil surface and the particle size class of the soil is fine, a compacted surface layer may develop in connection with pore-sealing to form, on drying, a more compacted soil surface layer.

- Microbiotic soil crusts and livestock trampling

Comment: No quantitative data is presented to back up the claim that livestock trampling has impacted microbiotic soil crusts in the RMP area. How do livestock affect these organisms?

Response: Microbiotic soil crusts are poorly adapted to compressional disturbances. Disruption of the crusts brings decreased organism diversity, soil nutrients, and organic matter. Livestock trampling has a direct impact on the crusts. Trampling breaks up the sheaths and filaments holding the soil together and drastically reduces the capability of the soil organisms to function, particularly in nitrogen fixation. Regeneration of these organisms after disturbance is dependent on a number of factors but in all cases it is a slow process and may take from 5 to 20 years for post disturbance recovery. In the publication - Introduction to Microbiotic Crusts, 1997, USDA-NRCS there are a number of scientific references that support the soil stabilizing, nitrogen supplying, and livestock impact characteristics of these organisms.

On the ground observation made by the author and other professionals over the past 20 years support the conclusions that these organisms, in the lower elevation areas in the RMP area, have had from moderate to severe impacts from historic livestock management practices. This is evidenced by the total absence of these organisms in the inter-shrub areas where trampling has occurred and presence of these organisms under protection of the canopy of the shrub. In protected areas of the same ecological sites the presence of these organisms in the inter-shrub areas is frequent.

- Soil compaction and livestock grazing

Comment: There is no quantitative relationship between unstudied or undocumented numeric changes in compaction of soils from livestock grazing actions in the RMP area and the findings in the scientific references sited in the soils section chapter 3.

Response: The discussion on soil compaction and livestock grazing actions in Chapter 3 are there for educating the reader on the effects of soil compaction on soil infiltration rates. Soil compaction is a scientifically proven occurrence on rangeland soils. It has negative impacts on the soil resource.

The studies conducted by Rauzi and Hansen,1966, on grazing intensity and soil compaction strongly support the conclusion that certain livestock grazing practices can severely impact soils. The author's intention in this section of the RMP was not to say that these same impacts are documented in the resource area. The author presents this data so the public can understand that improper livestock practices on sensitive soil type has a very high probability of causing this impact.

- Garat allotment and erosion

Comment: There is no evidence of accelerated erosion on the Garat and other allotments. Please review the data and make changes to the plan as required.

Response: The RMP document does not address accelerated erosion on specific allotments. What is evaluated is the erosion hazard rating on these allotments. The erosion hazard rating only classifies a soils potential susceptibility to the erosive forces of nature (wind and/or water) if the existing vegetational cover were removed, not the actual present erosional condition of the soil. The allotment summaries list erosion as a concern if the allotment has a high erosion hazard rating.

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- Late seral stage cover as part of soils objective

Comment: Why are we aiming at 'late' seral stage cover as part of the soils objectives? How are we to know that the percentages sought in the plan are beneficial or required?

Response: The soils objectives have been revised and this condition is no longer part of the objectives.

- Accelerated soil erosion

Comment: What is accelerated soil erosion and where are the studies to prove that there is increased erosion in the RMP area. Is all soil erosion accelerated?

Response: Soil erosion is a natural process in all ecosystems. Nature balances this action by soil building processes. There is an acceptable level of soil loss under natural conditions. Certain high intensity climatic events can produce a natural accelerated rate in the soil loss process. In many ecosystems, man, by his actions, has accelerated this natural process. Examples include changes in the vegetative cover by grazing herbivores thereby exposing the soil to the erosive forces of the wind and/or rainfall. Another example is where the combination of the stripping of bank stabilizing vegetation from streamsides in conjunction with the mechanical destruction of the physical structure of the bank by grazing herbivore hoof action will result in accelerated bank erosion during high runoff events. Both of these examples have been identified in the RMP area.

Also see the response to "How is localized accelerated soil erosion defined in the document and how will it be assessed".

The use of the term increased or decreased erosion in the analysis in chapter 4 is explained in the response to "The use of the soil erodibility factor, K, and the estimates of soil erosion in the alternatives".

- Professional judgement in evaluating riparian areas

Comment: Is the Bureau proposing that professional judgement alone may be used to evaluate riparian condition in the absence of monitoring data? If so, isn't this inconsistent with the explanation of monitoring methods found in Appendix MONT-1, p.A-405? How consistent is this with the Minimum National Standards (TR1737-9, 1993)?

Response: Under new Bureau guidance and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management, allotments and/or pastures that are not meeting these standards can have management decisions made based on professional judgement of whether or not the established standards are being met or not or if significant progress is being made toward meeting the standards.

- Impacts of vegetation treatments on soils

Comment: Impacts and environmental consequences of prescribed burns and other vegetation treatment on the soil resource in terms of erosion, nutrient loss, destruction of microbiotic soil crusts, and other affects are not discussed thoroughly enough.

Response: The effects of fire on the soil resource are very site and burn intensity specific. Fire and other vegetative treatments can have both short and long term negative impacts to the soil resource. Examples of some of these impacts are volatilization of certain nutrients, loss of nutrients as a component of soil erosion by wind and/or water, loss of the hydrologic function of the soil (decreased permeability), loss of surface organic matter and the subsequent cation exchange capacity, and offsite water quality impacts. These same actions, more often, have long term positive impacts on the soil resource. These are in the form of increased post fire vegetative composition, density and vigor which will increase cover, litter accumulation, root mass, increase permeability rates, and increased infiltration.

- Guidelines for the use of woody vegetation

Comments: There is a need for riparian livestock grazing guidelines for use of woody vegetation to be included in the preferred alternative.

Response: These have been included in alternative E.

VEGETATION

- Juniper encroachment

Comment: Western juniper encroachment is a major issue concerning the Owyhee Resource Area. Alternative C does not adequately address this issue.

Response: As a result of comments received concerning western juniper encroachment, the preferred alternative "E" proposes burning or harvesting 64,500 acres of juniper and burning 57,500 acres of sagebrush being encroached upon by juniper. Approximately 5,000 acres of juniper/sagebrush may include a follow up seeding due to lack of sufficient understory vegetative response to stabilize the site. In other words, 122,000 acres are being proposed in part to control juniper encroachment into the sagebrush steppe.

- Juniper encroachment and watershed condition

Comment: How can unsatisfactory watershed condition be improved within the preferred alternative when the acres of seral juniper actually increase? Under the preferred alternative, watershed conditions would decline as the juniper numbers increase as invaded sites become deteriorated.

Response: Western juniper is a highly adapted species capable of growing and encroaching upon most sagebrush steppe habitat types. Encroachment upon these sites may or may not degrade the watersheds. Areas where western juniper exist must carefully be examined before control is initiated. The negative aspects must be weighed against the positive aspects not only in terms of watershed values but other resources values as well.

- Ecological status

Comment: On page IV-B-13 the draft projects a downward trend in ecological status, directly contradicting the analysis of ecological status on pages IV-B-6 & 7 showing significant increases.

Response: This section has been corrected to reflect improvement projected under alternative B.

- Vegetation condition improvement

Comment: As indicated on page III-8, range improvement over the past 19 years shows early seral range declined by 23%, while mid-seral and late-seral range increased by 35% and 38% respectively. Although improvement occurred under the current management over 20 years, the analysis of Alternative A fails to show improvement over the next 20 years. Why is this?

Response: Analysis of alternative A shows that there would be improvement or the vegetation would move toward PNC.

- Vegetation manipulation vs. livestock grazing adjustments

Comment: The preferred alternative C favors adjustments in livestock grazing as the primary tool for achieving soil, water, vegetation, wildlife, fisheries and other objectives. In those areas classed as low seral stage due to juniper invasion, sagebrush dominance or cheatgrass dominance, livestock grazing adjustments will not have any positive vegetation impact.

Response: This is not true. Under alternative C vegetation manipulation is being proposed for 34,100 acres on sagebrush dominated vegetation as well as 47,300 acres on juniper dominate vegetation. The preferred alternative E proposes to reduce dominance of sagebrush and juniper by 122,000 acres as well as adjust livestock grazing practices in many areas.

- Vegetation objective

Comment: Objective VEGE2 calls for an increase of one seral stage on at least 10% of the land under 3500 feet elevation. The BLM staff preferred alternative C again proposes to "adjust overall grazing management practices" in order to increase cover of perennial grass species to 15%. Since much of the area described here is a salt desert shrub community which under pristine conditions supports no more than a 10% cover from perennial grass, this objective is completely unrealistic. The vast areas of annual cheatgrass range will not change seral stages simply by adjusting livestock grazing use.

Response: As a result of comments like these the vegetation objective has been revised. The intent of the vegetation objective is to provide criteria to assess management actions against. The lesser standard to improve the perennial grass cover by 15 percent over current conditions may be achievable within the 20 year time frame. A change from early seral to late seral within 20 years is generally not achievable on those lands located below 3500 feet in elevation.

The new vegetation objective, "to improve unsatisfactory and maintain satisfactory vegetation health/condition on all areas," is very similar to the original objectives. It allows BLM to assess the health of the vegetation and if grazing levels or practices are a significant factor in failing to achieve the standards to healthy rangelands. Where livestock grazing levels or practices are not a significant factor in achieving this objective then adjustments would not be made.

- Livestock season-of-use

Comment: On page IV-B-5 the draft lists adverse impacts of maintaining livestock season of use and yet Alternative B would propose significant changes in livestock seasons of use in nearly all allotments.

Response: Alternative B as presented in Chapter 2 and Table LVST B actually shows very few proposed changes in livestock seasons-of-use.

- Vegetation improvement

Comment: On page IV-B-6 the draft concludes that uplands outside of treated areas would not improve in seral class, however, Alternative B proposes to intensify grazing management from the current situation which over the past 19 years shows early seral range declined by 25% mid seral range increased by 35% and late seral range increased by 38%. How can the conclusion be justified?

Response: "Intensive grazing management" can mean many different things, in terms of rest, deferment, stocking levels, degree of use, etc., BLM concluded that the upland vegetation has responded favorably to previous changes to intensive livestock grazing management. The vegetation would respond favorably to future significant favorable changes in livestock management but at reduced rates from those previously experienced and the analysis has been revised to show that the vegetation would continue to improve.

- Livestock turnout dates

Comment: April 1 is proposed for the turnout dates for many allotments. A review of phenology data would show that turnout should not be allowed before April 15. Livestock should only be turned out when key forage plants make enough growth to sustain the level of grazing use and still allow the majority of plants to fulfill reproductive requirements.

Response: This may be true if turnout is in the same pasture every year and changes in climate do not alter the date of initiation of growth on forage species. However, it does not take into account grazing levels or strategies which would provide for healthy rangelands.

- Vegetation objective

Comment: Objective VEGE 1 needs some further clarification. The targeted seral stages for specific allotments may not reflect the target values for the entire resource area. Specific changes or target levels for each allotment should be determined on an allotment basis. While a general target for the resource area can serve as a guide to developing allotment plan objectives it should not be a hard and fast criteria for every allotment.

Response: The vegetative objective has been revised to reflect the importance of managing for healthy rangelands.

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- Livestock objective rationale

Comment: The rationale for objective VEGE 1 omits the requirements of the Federal Land Policy and Management Act (Sec. 1701 (a) (8) which state that "the public lands be managed in a manner that will provide food and habitat for domestic animals". And, Sec 1701 (a) (12) which states "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of food," the reference to the Public Rangeland Management Act is incorrect and should be given as a direct quote. Sec 1901 (b) (2) "manage, maintain and improve the condition of the public rangelands so that they become as productive as feasible for ALL rangeland values . . .." (emphasis add) The rationale should be changed to fully reflect the word and intent of the Federal Statutes forming the basis for vegetation objectives.

Response: The Bureau understands there is a legal basis for livestock grazing on public lands. Reprinting all the laws governing the management of public lands would do little more than add costs to the publication of this document. A brief summary of FLPMA was stated below the vegetation objective in Chapter 2. The livestock objective has been rewritten showing livestock grazing would continue at a sustained level consistent with other resource objectives.

- Vegetation changes

Comment: The BLM staff preferred Alternative C fails to recognize that other management actions directly or indirectly affect seral stage class. Monocultures of sagebrush that have lost much of the understory are not a natural occurrence. In a natural state, sagebrush communities should show the effects of recurring fire leaving a mosaic of landscapes with little sage (recent fire) to thick sagebrush (historic fire). Fire suppression efforts have altered the historic pattern of fire frequency that maintained the mosaic in the past and have allowed some sagebrush stands to become so dominant that no other plants can survive. These areas will not change simply by adjusting grazing management. Reintroduction of fire into these systems is the only way to attain a natural vegetation community. The vast areas of advanced juniper invasion cannot be classified as late seral since they have displaced the sagebrush bunchgrass communities that should occupy these sites. There is no conceivable adjustment in livestock grazing use that would have any impact what so every on these sites. None of the proposed management actions under the preferred alternative C would contribute to achievement of the objective.

Response: Few areas dominated by juniper and/or sagebrush and currently grazed at appropriate levels and at appropriate seasons-of-use are being proposed for livestock adjustments. Most livestock adjustments are proposed in order to provide for riparian or other water resource improvement. Prescribed fire and juniper harvesting is proposed for improving upland conditions.

- Vegetation condition improvement

Comment: Comparing the 1977-79 field inventories to current estimates show that, good condition range has increased by 37%, fair condition has increased by 35% and poor condition range has decreased by 25%. In these arid lands and considering the extended drought of the 1980s the improvement demonstrated here is very significant. As improvement continues on these lands, research indicates that the improvement will occur at an even faster rate in the future. Such improvement would be expected to occur even under the continuation of current management (Alternative A). How could the conclusion determine that there would be no continuation of improvement under the current management? Alternative B would increase the rate of improvement by developing new and more effective allotment management plans and grazing systems along with appropriate ecologically based vegetation treatments.

Response: The RMP/EIS shows some improvement of the uplands would occur under all alternatives. Some areas such as streamside riparian sites would likely not significantly improve in many areas under current durations, intensities and seasons-of-use.

- Vegetation treatments

Comment: Treatment areas subject to reseeding programs are currently made up of essentially Monocultures of sagebrush, juniper or cheatgrass. Even if these Monocultures were replaced with a non-native dominant that is more capable of sustaining watershed function the vegetation treatment should be viewed as a positive change with regard to vegetation. The authors indicate that seeding COULD be beneficial IF they stabilize soils or re-establish native species where they will not naturally revegetate an area. The discussion should have stated that seeding WOULD be beneficial due to stabilization of soil and re-establishment of native species.

Response: Vegetative treatments are not always beneficial to the watershed. In fact many can be quite detrimental especially in the short term between the time frame of seedbed preparation and seeding establishment. Also, soils must be unstable to begin with to benefit from stabilization activities which is not always the case even when the vegetation is dominated by downy brome, big sagebrush or western juniper. Seedings can be both beneficial and nonbeneficial depending upon different objectives. This is true regardless of the species mix being seeded.

- Recreational vehicle impacts

Comment: The authors indication that recreational vehicle use would have an adverse impact on vegetation does not reflect the letter or intent of Alternative B. The analysis again falsely indicates that there would be no management or restrictions of recreational vehicles use under Alternative B. Properly monitored use and plans to provide for desired use without undue negative impact as proposed in Alternative B, will not have adverse impacts simply due to an increased use area.

Response: New roads and trails are occurring on public lands as a result of cross country travel by OHVs. This impact is having a direct negative affect on the vegetation by killing the plants being driven upon and indirectly by spreading weed seeds and causing soil erosion. If, under Alternative B, plans can be developed and implemented to reduce the number and size of the current activities then this alternative would result in a positive vegetative response.

- Water developments

Comment: The analysis predicts that 86 water developments in Alternative B would have site specific adverse impacts on vegetation. Alternative B proposes 75 developments (assuming one tank for each 2 miles of pipeline) not 86 developments. Each site would be used at different times of the year depending on the grazing system they supported. It is entirely reasonable to expect that 75 properly designed projects would not impact more than a few acres. The vegetation impacts would be extremely limited in area improved range condition would result from grazing systems supported by these developments.

Response: The rangeland water developments whether there are 75 or 86 being proposed under alternative B would still cause site specific impacts to the vegetation and soils during construction. Additional impacts may be caused by increasing livestock grazing in an area of past minimal grazing activities. Overall impacts on an allotment or pasture scale could be beneficial to the vegetation.

- Livestock grazing systems

Comment: The authors state that Alternative B would maintain season-of-use and could have adverse impacts through spring use on bluebunch wheatgrass. This is a false representation of Alternative B. The entire basis of Alternative B is that livestock grazing use of individual pastures would be subjected to grazing treatments through appropriate grazing systems in order to specifically improve upland and riparian vegetation. Seasons of use would obviously not be maintained as the analysis erroneously states. By contrast, the authors in the analysis of environmental consequences for the preferred alternative C on page IV-C-5 make the same statement about adverse impacts of spring use on Bluebunch wheatgrass. However, they also state that grazing systems are designed to avoid these adverse impacts. Why didn't the authors acknowledge that the basis of Alternative B, implementation of appropriate grazing systems through allotment management

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plans, would mitigate any adverse vegetation impacts on Bluebunch wheatgrass? Alternative B specifically calls for the development of grazing systems on every allotment to mitigate adverse impacts both on riparian systems and uplands. If Alternative B were honestly represented it would be the obvious choice as a preferred alternative.

Response: Alternative B as presented was analyzed without changes in livestock grazing seasons-of-use and increasing livestock grazing 11 percent. Many grazing systems are currently in place and others can be designed to mitigate grazing impacts on bluebunch wheatgrass. However, some resource constraints such as wilderness study areas, eligible wild and scenic rivers, sensitive species, cultural resources, wild horses, etc., may preclude construction activities necessary to implement grazing systems and subsequent adjustment in livestock grazing practices that will provide for healthy bluebunch wheatgrass stands. The adjustments in livestock grazing practices necessary to meet multiple use objectives would therefore fall outside the intent of alternative B.

- Alternative B livestock increase

Comment: The authors make the statement that an 11% increase in use could adversely impact vegetation. Immediately following this the statement, they acknowledge that such impacts would be mitigated since they would not be implemented unless monitoring data indicates that the vegetation would not be adversely affected. Please explain this.

Response: The vegetation section under Alternative B IV-B states that increased livestock use could result in declining condition on treated sites and also prevent improvement on adjacent untreated areas. It goes on to say that increases would not occur until and unless monitoring indicated the forage was present above active preference. This statement was written to inform the public that grazing increases projected under alternative B would not be automatic decisions but would be based upon monitoring conducted over time. This process is consistent with the grazing regulations.

- Vegetation condition improvement

Comment: The analysis of acreage remaining in low seral stage after 20 years is vastly over estimated for Alternative B. Vegetation treatment on 92,320 acres of seral juniper (much of which is currently in a low seral class) would be increased to a late seral stage. Much of the sagebrush treated areas (264,000 acres) would also change from low seral sagebrush Monocultures to a late seral stage. The implementation of beneficial grazing systems on I and M category allotments, would also bring about substantial decrease in low seral range, a decrease in mid seral range and an equally significant increase in late seral range. It would not be unreasonable to expect a shift from low seral to late seral condition which could meet the resource objectives.

Response: The estimates may be conservative. The important thing is the direction of trend in vegetation. Additionally, treating 264,000 acres (as proposed under alternative B) of sagebrush communities would likely result in a change from early seral status to treated status rather than early seral status to late seral status.

- Data availability

Comment: Where is the scientific data specific to allotments 0651, 0570 and 0624 that support ecological status?

Response: Ecological Site Inventories were conducted in the late 1970s. This data can be found in the BLM District Office.

- Vegetation objective

Comment: Vol 1 II 29 VEGE 2 directs establishing and maintaining an upward trend on all land below 3500 feet elevation and raise seral class 10% on these lands. Alternative C proposes management grazing adjustments to an increase of 15% seral class. The potential for these seral lands is only 10% as stated by professional academia. Why do you want 15%?

Response: The objective has been revised to reflect a rangeland health approach.

- Juniper control

Comment: Juniper control does not always mean burning. I think we should look into chemical control on some areas. These areas are where the junipers have a lot of new trees coming in. Alternative C does not recognize the juniper invasion problem or its affect on the riparian areas, wildlife habitat, fish, etc.
Response: Using mechanical and chemical methods to control western juniper and big sagebrush would fall within the scope of this RMP/EIS and is so stated in the RMP under alternative E. Individual tree burning, cutting, and chemical placement would have a place along side prescribed burns as methods to control juniper. Each method of control would require its own site specific analysis showing potential impacts to all resources.

- Grazing in wilderness study areas

Comment: All allotments within a wilderness study area should be in good condition with an upward trend, or not be grazed until those conditions are met.
Response: Livestock grazing is a grandfathered use within WSAs so long as it does not cause resource damage and the livestock grazing activities are meeting multiple use objectives.

- Rangeland condition

Comment: Vegetation Resources page III-7, affected Environment: the range condition data taken from the 1977-79 field inventories is now nearly 20 years old and was obtained during an extreme drought that made the information unreliable even at the time. A significant portion of the fair and poor condition range is a result of the encroachment of juniper into sagebrush grass communities. Also, a significant portion of the poor condition range is a result of sites invaded by cheatgrass that have reached a stable state which will not be reversed without significant intervention. The authors do not specifically differentiate the reasons that rangelands are in poor or fair condition. This information must be provided in order to properly evaluate proposed objectives and management actions for addressing vegetation concerns.
Response: The current ecological status was derived from Ecological Surveys conducted in the late 1970s and adjusted using monitoring data. Regardless of the current ecological status monitoring is necessary and important to aid managers to determine if livestock grazing is a significant factor in failing to meet objectives. If it is determined that livestock are not a significant factor then adjustments in livestock grazing would not occur.

- Livestock grazing adjustments

Comment: The preferred alternative C favors adjustments in livestock grazing as the primary tool for achieving soils, water, vegetation, wildlife, fisheries and other objectives. In those areas classed as low seral stage due to Juniper invasion, sagebrush dominance or cheatgrass dominance, livestock grazing adjustments will not have any positive vegetation impact.
Response: Monitoring is conducted and data is collected and analyzed to determine if livestock are a significant factor in failing to meet objectives. In areas where it is determined that livestock are not a significant factor then adjustments would not be made.

- Juniper control

Comment: The bureau cannot possibly eliminate areas like WSAs from prescribed fire treatments and meet the goal of eliminating and controlling seral juniper invasion. The proposed acreage limitations on prescribed fire under the Air Quality objective (9,000 ac) will not allow the bureau to correct seral juniper invasion and prevent the continued expansion of seral juniper. However, the bureau proposes to burn only 1,500 acres annually.
Response: Preferred alternative E proposes treating as much as 122,000 acres of western juniper. Within WSAs prescribed fire may be used as a management tool if carefully designed to maintain or enhanced the wilderness resource. Prescribed fire is used only when the project can be accomplished without serious or

long-lasting damage to the watershed or the area's wilderness character. Prescribed fire will not be permitted only to improve wildlife or livestock values. It may be used only for the following purposes:

a. It is needed to maintain the natural condition of a fire dependent ecosystem or to reintroduce fire where past strict wildfire control measures have interfered with natural ecological processes.

b. A primary value of a given wilderness will be sustained as a result of the burning.

c. It will promote the perpetuation of a threatened or endangered species.

- Grazing impact inconsistency

Comment: There are several instances where the Bureau described negative impacts for Alternative B but the same management strategy proposed in Alternative C was determined to have positive impacts. For example, in the analysis of environmental consequences for the preferred alternative (pp.IV-C-5), it states that early use on Bluebunch wheatgrass would have adverse impacts on the plants but goes on further to state that grazing systems are designed to mitigate these impacts. However, this latter statement was not included in Alternative B which specifically calls for the development of grazing systems on every allotment mitigating any negative impacts. This type of inconsistency within the analysis needs to be corrected wherever it occurs.

Response: Alternative B and Alternative C proposed different approaches to resolve similar concerns. Alternative B proposed grazing systems but with few if any changes in seasons-of-use and with increasing livestock grazing above the current levels. Alternative C proposed major changes in season-of-use and a significantly reduced level of grazing.

- Vegetation inventory methods

Comment: Vegetation, p. III-8, Affected Environment: Range condition data taken during the 1977-81 field inventories is now nearly 20 years old. How did the Bureau estimate current ecological condition using "1977-81 ecological site inventories, utilization studies, climatic data, actual use data, trend monitoring data, and resource specialists' professional judgment? Is this methodology scientifically acceptable?

Response: The current ecological status estimates were derived from the original surveys and modified with information gathered at key vegetative trend monitoring locations. The trend monitoring data methodology is consistent with Bureau policies and manuals. Idaho BLM policy document, "Minimum Monitoring Standards for BLM Administered Rangelands in Idaho" has been endorsed by academia, the livestock industry, state agencies and the Society for Rangeland Management.

In Owyhee Resource Area, the primary causal agents to rangeland vegetative trend in ecological status are climate and livestock grazing. Utilization studies coupled with livestock's actual use indicate the degree and timing of grazing which are instrumental in determining if livestock are having a significant effect on the vegetation. Climate is monitored to help differentiate those impacts due to livestock grazing from those caused by climatic events such as drought. Actual livestock use, utilization studies and climate information are used in conjunction with long term vegetative trend studies to determine the direction of ecological status. Ecological status has replaced the term range condition because range condition infers different meanings to different people. If significant changes in ecological status are not being detected through trend monitoring, then chances are ecological status has not significantly changed and a complete vegetative inventory would not show significant changes either.

- Cheatgrass management

Comment: Many areas in the Owyhee Resource Area have been invaded by cheatgrass. The final plan must define objectives and specific management actions which will be implemented to improve these lands to functioning, diverse, native-vegetated lands.

Response: Within "Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management" standard #6 (exotic plant communities, other than seedings) would be used to manage cheatgrass (downy brome) dominated vegetation communities.

[redacted]

- Grazing reductions

Comment: Grazing reduction should not take place on the Baxter Basin and Soda Creek allotments if the reductions are based upon upland ecological condition assessed in the late 1970s.

Response: The reductions proposed for the Soda Creek Allotment (0652) under Alternative C were proposed to reduce the duration of grazing on Soda Creek and Cow Creek. Subsequent to the publication of the Draft RMP, an approved grazing system has been implemented on the Soda Creek Allotment, and preferred Alternative E proposes maintaining the current grazing preference. Baxter Basin Allotment (0530) is not being proposed for a reduction in grazing preference under preferred Alternative E.

- Non-native seedings

Comment: Why did BLM assume the use of non-native species? Why did BLM write "seedings could have a beneficial impact if they are used to stabilize soils or to re-establish native species? Why are seeding projected to be adverse?

Response: Seedings would require some kind of seedbed preparation to among other things reduce the present vegetative competition. To seed directly into an established stand of vegetation would generally result in failure. The common seedbed preparation activities include prescribed fire, herbicide applications, plow, disk, chain or some other form of disturbance to the vegetation and soil surface. These activities cause adverse impacts to the existing vegetation. The different seedbed preparation activities would impact species differently. In other words plowing would result in impacts different than prescribed fire. Seedings can be used to improve soil stability, improve habitat for some wildlife species, improve forage or carrying capacity for livestock, wild horses and some wildlife. By converting the vegetative composition some species would be adversely impacted. BLM recognizes that multiple use objective such as protecting wildlife and watershed conditions as well as biodiversity may not be accomplished simultaneously.

All seedings would conform to Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management. These guidelines include seedings that maintain or promote the physical and biological conditions necessary to sustain native plant populations and wildlife habitats in native plant communities.

The conversion to exotic communities will be minimized. Native species are emphasized for rehabilitating disturbed rangelands. Non-native plant species used for rehabilitation would occur only if:

1. native species are not readily available in sufficient quantities;
2. native species cannot maintain or achieve the other standards of rangeland health and;
3. non-native plant species provide for management and protection of native rangelands.

Idaho Department of Fish and Game recommends the following to minimize impacts to seedings on wildlife. These recommendations would be followed:

- Avoid key wildlife habitats including but not limited to big game or sage grouse winter range, sage grouse nesting areas, antelope fawning areas, or habitats critical to sensitive species.
- Reduce the size of seedings and separate them by areas of native range.
- Include native shrubs and forbs seedings. Encourage a shrub and forb component in seedings.
- Consult with the sage grouse local working group when planning seedings in sage grouse habitats.
- Consult with the IDFG when planning seedings in key wildlife habitats.

Some commentors wanted to know why BLM assumed the use of non-native species in seedings. There are economic and practical constraints which limit the use of native species. Native species seed costs are expensive. Seed costs alone can push the total costs of an acre of seeded rangeland well over 100 dollars per acre. Comparing crested wheatgrass seed (approximately $1.00/lb) to bluebunch wheatgrass seed (approximately $8.00/lb) at the seeding rate of 8 lbs/acre quickly points out why non-native species were considered for seeding. Also, seedling survival and drought resistance are far superior for non-native species such as crested wheatgrass versus native species like bluebunch wheatgrass.

Therefore, given the practical and economic constraints as well as the extensive acreage proposed to be seeded BLM concluded that seedings would generally be adverse to biodiversity under Alternative B.

[redacted]

- Rangeland condition objectives

Comment: The rangeland condition objectives remain dependent upon a linear successional model that has been abandoned by the vast majority of scientists studying arid rangelands west of the one hundredth meridian. The agency's proposed adoption of across-the-board reductions will have drastic impacts on many who utilize presently-available resources. Tragically, this impact will not be offset by "improved" rangeland condition, because the agency's stated goals simply cannot occur on many sites within the ORA. Instead of basing area-wide management decisions on archaic theories, the agency should encourage site-specific planning decisions based on state-of-the-art rangeland theory which recognizes that western rangelands are better-modeled according to a state and transition theory.

Response: This is one theory. However, a vast majority of the livestock grazing reductions proposed under preferred alternative E are to improve streamside riparian resources and to meet Idaho Standards for Rangeland Health.

- Allotment vegetation trend data

Comment: GFGA employed Range Consulting Services to reread seventeen of the twenty trend sites. This 1997 trend data showed that thirteen pastures had an upward trend and one pasture showed a downward trend on key plants. The "apparent trend" is not relevant and is not determinative of anything since the frequency trend sites have now been reread.

The DORMP purports to report the "current" ecological condition, when in fact, after reviewing the underlying data, it relies upon information collected in 1977/78, and upon a value which reflects the lowest of 4 factors, which are (1) ecological condition, (2) preferred species present, (3)erosion, (4) stand for site. Therefore, the DORMP erroneously reports what is the current ecological condition. Instead, and at best, the information reported by the DORMP informs the reader what is the lowest of 4 factors about 20 years ago. As a result, no recent determination has been made by BLM or by GFGA except to the extent one can infer from the trend data an improving trend in frequency of specific plant species within the allotment over time.

Response: This is an accurate description of the methods used in collection of the baseline data published in the 1981 Owyhee Grazing EIS. However, for the Draft RMP, this baseline data was updated to an estimated current status based on monitoring data and professional judgement and is therefore correctly identified in Table Vege-2 as Current Estimated Ecological Condition. The nested frequency trend plots in the Nickel Creek Allotment were reread by BLM personnel during the summer of 1998. Analysis has not been conducted to assess trend. This will be completed during the allotment assessment process. The analysis of the trend data in conjunction with other data will aid in determining if healthy rangelands exist and if not then is livestock grazing a significant factor in failing to achieve healthy rangelands.

The trend data also will show if key species are becoming established or being removed from the vegetative communities. This information is important to determine if the trend in vegetation is toward PNC and therefore toward management objectives.

- Monitoring of objectives

Comment: There is no mention in the RMP/EIS of how BLM intends to monitor the objectives of VEGE 1 (page II-24) or VEGE 2 (page II-28). Research literature, as cited above, indicates that it is virtually impossible to go from one seral stage to another without a much greater intervention or management effort than simple grazing control.

Response: This objective was revised. The long term objective will remain to achieve the later seral status and the short and long term objective would be to achieve healthy rangelands. Monitoring would continue to include utilization, actual use, climate and long term trend studies.

- Data inconsistency

Comment: The current situation in summary S-4 doesn't match the discussion on III-9. Why is this?

Response: These percentages don't match because one set of figures deals with Geographical Reference Areas (GRAs) and the other deals with the entire resource area above 3500' in elevation.

[redacted]

- Seral stage definition

Comment: The different seral stages including the treated category have not been defined.
Response: Ecological status is defined in the glossary. Potential Natural Community is one of four ecological seral stages. Treated status are lands where the vegetation has been manipulated and seeded to non-native species. A crested wheatgrass seeding would be classified as treated. These lands have different management goals because they would generally respond differently to management actions versus native rangelands.

- Brush burning

Comment: Summary of resource allotments, management actions and environmental impacts by alternative. Under Range Projects the RMP lists "brush burn" under all alternatives. No discussion of brush burn is presented in the Draft RMP. What does BLM mean by brush? "Brush" is a term commonly used by extractive interests to mean any woody plant that gets in the way of a cow eating grass. BLM must clearly define what this means, and provide a complete analysis of this action. Any proposed burning of sage-steppe or mountain shrubs must be deleted from Alternatives C and D.
Response: Brush refers to sagebrush steppe communities. Under preferred Alternative E, BLM proposes to burn 105,000 acres of big sagebrush and/or western juniper. The prescribed fires would be conducted in areas where natural regeneration should rehabilitate the site. However, some areas (estimate 5000 acres) may not respond sufficiently to adequately rehabilitate the site so, seeding for stabilization and improving biodiversity may be necessary.

- Vegetation condition improvement

Comment: BLM's analysis for VEGE 2 indicates little change over the life of the plan for all the alternatives. Analyzing the results in this manner suggests to the public that no matter what alternative is chosen, it will not affect the outcome. This approach fails to provide the public with a reasonable set of alternatives as prescribed by NEPA. To better comply with NEPA the BLM should analyze the results over a longer period of time, or describe how long it will take each alternative to achieve a specific amount of improvement. The BLM must change their analysis technique on this alternative to ensure the public can effectively choose between the alternatives!
Response: This objective has been revised. However, the response of the upland vegetation (projected to improve from its current ecological status to the late seral stage) varies greatly under the different alternatives. For example, under alternative A the current late seral vegetation acreage would improve from 143,584 acres to 192,274 acres and under alternative B to 304,109 acres.

- Vegetation seedings

Comment: VEGE 1 is generally a good goal for promoting healthy ecosystems within the ORA. A significant failure within VEGE 1 and the entire vegetation section, is that it ignores seedings and annual range. Seedings and annual range are admittedly a problem for the BLM, but this does not mean the agency can ignore their responsibility to manage all lands within the ORA. It is inappropriate, and potentially a violation of NEPA, to completely ignore these lands and not provide some guidance on their future. The BLM should define steps to improve these lands to functioning diverse native-vegetated lands.
Response: These lands will be managed in accordance with "Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management." However, in the ORA, the acreages of lands currently seeded or in annual rangelands is relatively limited.

- Juniper classification

Comment: How does BLM classify early vs. mid-seral juniper? It is our observation that no juniper woodcuts ever occur in early seral stage juniper. They all occur in mid or late seral communities, which have many trees of 100+ years.

[redacted]

Response: Western juniper communities fall into two classifications. See discussions of juniper under the forestry management, affected environment section. Sites dominated by trees in excess of 150 years of age are generally considered juniper upland sites. Sites dominated by juniper trees which are generally less than 100 years in age are not classed as juniper sites. It is these communities where juniper is considered an invading species and where juniper treatments are proposed. Most woodcutting occurs of trees 60 to 100 years old.

- Prescribed burning

Comment: Prescribed burning can have many adverse affects especially upon Idaho Fescue, soil fertility, some native shrubs, etc. Therefore, BLM cannot conclude that beneficial impacts will result from vegetation treatment. There must be site specific analysis.

Response: Site specific impacts will be analyzed in an EA on the potential impacts of prescribed burning.

- Vegetation communities

Comment: The RMP states: "When any species or class of vegetation is allowed to dominate a large area, ecological diversity, forage production, and plant vigor will be adversely impacted." What is the basis for this statement?

Response: This statement means that there is a finite amount of sunlight, nutrients and water available for plant growth. As one species gradually consumes or uses these resources less is available for the other plant community members. As this process continues less adapted members of the plant community become less healthy and eventually leave the community. This process eventually results in reduced biodiversity.

- Noxious weeds

Comment: Noxious weeds are reported as a concern on the Nickel Creek Allotment. In our meeting with BLM on 11/1/96, BLM could not substantiate this concern. GFGA does not know of a noxious weed problem on the Battleground-Boni Allotment.

Response: Common St. Johnswort was discovered along Thomas Creek on public lands on the Nickel Creek Allotment.

- Economic analysis

Comment: The economic costs and impacts of vegetation manipulation - including EA preparation, immediate costs of implementing an action, costs of site rehabilitation, possible costs of watershed blowout, downstream flooding, losses in recreational opportunity, etc. must be thoroughly analyzed.

Response: Please refer to the economic analysis section.

- Grazing adjustments

Comment: Cumulative impacts of grazing livestock displaced by burns or other vegetation manipulation must be analyzed. Where will BLM find additional forage to accommodate permittees, or will the cows stay home until the land heals? Specify.

Response: Permitted grazing use may be decreased in order to facilitate rangeland vegetative manipulation projects.

- Cost of prescribed burning

Comment: How did BLM arrive at cost $8/acre juniper burn?

Response: This is an estimate of the cost of conducting prescribed burns on western juniper. This is based upon actual costs incurred on recent prescribed burns conducted within the Lower Snake River District.

[redacted]

Riparian Wetland, Water & Fisheries

- Monitoring data is outdated

Comment: (Vol 2, A-10) Much of the BLMs monitoring data is invalid due to its age. This data is often more than five years old. The information in Table RIPN-1 is out of date. There has been significant improvement documented since this information was obtained.

Response: The data in the RMP represents the best available BLM data. There is data in Table RIPN1 that was collected in the 1970's. This information is being updated as new inventories and monitoring occur. This older data is important in that it provides a reference point for documenting current trends. As new information is collected, current condition and trend will be evaluated.

The time interval between monitoring is an important consideration in our data collection efforts. These intervals can vary significantly based upon what parameters are being monitored. For example, temperature changes throughout a twenty-four hour period are readily discernible and can be measured hourly with precision. Other parameters change slowly over a long time interval and may require years for changes to be discernible. In fact, the longer the period of time over which monitoring has occurred better enables us to determine trends (changes over time).

- Stream inventory procedures

Comment: (III-12) Describe stream inventory procedures used in 1976 and in subsequent years concerning the number of segments evaluated, re-evaluations for trend, and protocols. Older inventory data is based upon subjective estimates.

Response: Stream inventories in the late 1970's rated the following stream parameters: (1) woody stream channel cover (channel shading); (2) bare streambank soil; (3) streambank stability; (4) lateral channel movement; (5) sedimentation; and (6) in-stream fish cover. Using ocular estimates, each factor was rated according to defined categories of excellent, good, fair, or poor. A representative area of 0.1 mile for every BLM administered stream mile or where noticeable changes in habitat condition occurred along each stream was rated.

Subsequent inventories have generally included these same parameters along with additional data. Inventory/monitoring efforts currently used involve breaking streams into like-segments or complexes based upon hydrologic, topographic, and administrative considerations. Current monitoring efforts concentrate on various vegetation, channel and streambank characteristics. Permanent points or transects are established to monitor changes in these parameters over time.

- Stream condition map

Comment: Specify which creeks on map FISH-1 have been inventoried . Data shows that 18% of segments have no monitoring data and an additional 35% have had only one observation.

Response: The updated map FISH-1, shows those streams with inventory and /or monitoring data. Many of these stream condition ratings are based on inventories done in the 1970's. These ratings will be reevaluated as new information is collected.

- OHMV use

Comment: (IV-B-3,8,12) The assumption that the number of acres with few limitations on OHMV use would increase in Alternative B is not correct. All cross county travel would be eliminated in 420,493 acres in the Resource Area.

Response: OHMV use categories proposed in Alternative B differ from the categories proposed in Alternatives A, C, and D. For example, Alternative B categories include historically used trails. This encompasses more acres making these categories more like the 'open' category of the other alternatives. In addition, Level IA and IB categories do not have provisions for temporarily limiting use if the need arises. The exception to this in IB is limiting organized races for wet/drought considerations. For these reasons, categories IA and IB were considered to have few limitations in the analysis of impacts.

[redacted]

- Early grazing curtailment

Comment: Why is need for a cease grazing date for a vast area based upon a small area (riparian-wetland areas). Why wouldn't it be feasible to exclude these smaller areas from grazing (through fencing or closures).

Response: The impact of livestock on riparian zones can be considerable as described in Chapters III and IV of the draft RMP. It is true that riparian-wetland areas comprise a small percentage of the total land area within the resource area. In some cases fencing or closure of these areas would be feasible. On a large-scale, however, it becomes economically infeasible.

- Hot-season grazing

Comment: (III-7) The BLM did not present any data to support the argument that hot-season grazing (July-September) is the primary obstacle to meeting water resource goals. Hot-season grazing is not the problem in Allotment #0501 since a good portion of the streams listed as unsatisfactory are inaccessible to livestock because of topography.

Response: The BLM is responsible for improving riparian and aquatic resources including water quality on public lands. This will be accomplished by implementing knowledgeable and reasonable management actions, using grazing BMPs and component practices approved in the Agricultural Pollution Abatement Plan.

The impacts of annual, excessive hot-season grazing in riparian areas is nearly always detrimental to riparian vegetation (Montana BLM, 1998; BLM, 1997). Vegetative impacts result in reductions in both plant vigor and replenishment of carbohydrate reserves needed for plant maintenance. Hydric vegetation communities are replaced by less desirable species which will not contribute to the desired level of riparian functionality (Montana BLM 1998). Limited vegetative regrowth does not result in adequate residual stubble height to perform filtering/buffering functions. And, as the amount of available herbaceous forage declines through the grazing season, livestock tend to consume more shrubs (Mosely et. al., 1997).

Significant contrast in vegetation cover, species composition, species diversity, vigor and production is apparent when comparing grazed and non-grazed (exclosures) portions of stream used by livestock during the hot-season.

Preliminary results from a recent inventory of 43 stream segments on seven streams in or near Allotment #0501 has shown that only 2 segments are inaccessible to livestock. Both of these segments are rated as being in satisfactory condition. An additional seven segments have access limited to about one-third or less of the streambanks. Of these seven segments, four have been rated as being in satisfactory condition. A preliminary review of functionality indicates that all of these segments are probably in proper functioning condition. Excessive hot-season grazing occurs on the remaining segments, impacting them as described in Chapter III.

- Utilization levels

Comment: (III-13) What impacts do utilization levels of 25% or less have on riparian areas.

Response: This reference has been dropped from the FEIS. Certainly, some impacts occur even with the most limited amount of grazing use even if we are not capable of measuring it given the monitoring techniques being used. However, from a management standpoint, the impacts that cannot be measured are considered insignificant.

- Monitoring data

Comment: (III-7) The BLM has not done sufficient monitoring to evaluate riparian condition throughout the Resource Area. Owyhee County has considerable evidence that indicates significant improvements in both riparian conditions and water quality. In the Cliffs Allotment, monitoring by permittees indicates significant improvement. Other streams in the allotment are at or near their potential. In addition, permittees have obtained independent assessments of fisheries condition, functionality, and stubble height in 1996 which indicate that segments are in good to nearly excellent condition. In the South Mountain Allotment, a 1996 assessment of Corral Creek indicates improved conditions since the 1978 evaluation.

[redacted]

Response: The BLM agrees that adequate monitoring data, both in quantity and quality, is needed to determine the effectiveness of current and future management strategies. On-going inventories and monitoring will identify those areas that have improved in condition. Comparison of the most recent data with data 20 or more years old will help establish long-term trends. When streambank stability and several vegetative parameters are achieved, we expect that the primary pollutants from livestock grazing, as discussed in the Water Resources section of Chapter III - Affected Environment, to be reduced resulting in improved water quality.

On-site monitoring and inventory done by the BLM shows that riparian/aquatic habitat problems persist in the Cliffs and South Mountain Allotments. Preliminary functionality assessments have shown that neither proper functioning nor satisfactory riparian conditions have been met on all of the stream segments in these allotments.

- Pollution monitoring

Comment: The Water Resources section does not include pollutants, water quality standards or a plan to reduce the pollution, nor does it address monitoring quality during periods of high runoff.

Response: The discussion of primary nonpoint source pollutants can be found in the Water Resources section of Chapter III.

Idaho Water Quality Standards were listed in the Draft RMP in Appendix WATR-1. Because these regulations tend to change occasionally over a period of years, this section has been removed from the Final RMP. The most recent water quality standards can be obtained from the Idaho Division of Environmental Quality.

The management actions proposed in each alternative to improve water quality are listed under Water Resource Objectives (page II-18 and following). The BLMs objective is to improve riparian vegetation health, cover, structure, and composition as a first step towards improving water quality.

The BLM does not generally monitor water quality during periods of high runoff. Most monitoring is done when stream flows are at a base level. This is when concentrations of pollutants are most likely to be limiting to cold water biota and other beneficial uses. The parameters most frequently monitored are water temperature, dissolved oxygen, pH, and fecal coliform levels.

- Beneficial uses

Comment: (WATR2, T-8) The table addressing beneficial uses does not describe how these evaluations are done.

Response: This table has been removed from the Final RMP. The process for assessing beneficial use attainment can be obtained from the State of Idaho, Division of Environmental Quality. One publication that addresses this topic is: 1996 Water Body Assessment Guidance - a Stream to Standards Process.

- Riparian and fisheries habitat degradation

Comment: (III-9,10,11,19) Livestock grazing is not the primary cause of riparian and fisheries habitat degradation. No specific, quantitative data has been presented showing that livestock grazing is responsible. Expanding juniper communities pose a greater threat to riparian function, water quality and fisheries habitat than grazing mining, roads and recreation.

Response: The impacts of annual, excessive hot-season grazing in riparian areas is nearly always detrimental to riparian vegetation (Montana BLM, 1998; BLM, 1997). Vegetative impacts result in reductions in both plant vigor and replenishment of carbohydrate reserves needed for plant maintenance. Hydric vegetation communities are replaced by less desirable species which will not contribute to the desired level of riparian functionality (Montana BLM 1998). Limited vegetative regrowth does not result in adequate residual stubble height to perform filtering/buffering functions. And, as the amount of available herbaceous forage declines through the grazing season, livestock tend to consume more shrubs (Mosely et. al., 1997).

Unsatisfactory riparian and fisheries habitat condition occur in a variety of locations throughout the resource area. This includes areas where juniper communities are expanding as well as areas where there are no junipers. What is common to most of these areas is excessive hot-season grazing. Some riparian areas have shown significant improvement when livestock exclosures are constructed. If livestock were not significant contributors to streamside degradation, exclosures would generally appear the same inside and out.

- Functionality standards

Comment: Information does not reflect new functionality standards done by an interdisciplinary team.
Response: This observation is correct. Evaluating functionality classes on the area's streams is a high priority for the BLM in coming years. Riparian functionality has been evaluated by an ID team on one allotment in the resource area. A number of other allotments have preliminary ratings assessed by 1-2 individuals. These need further review by an ID team before finalization.

The overall objective of riparian management is to achieve satisfactory condition, generally represented by an advanced ecological status. In order to achieve this state, the riparian system must first be functioning properly. Proper functioning condition will generally be achieved before the riparian area is in satisfactory condition. An assessment of functionality therefore, does not necessarily address other riparian objectives.

- Analytical data references

Comment: Provide references to analytical data showing that changes in species composition and species diversity are detrimental to beneficial uses, multiple uses or any use.
Response: Vegetation species composition is critical to improving, maintaining, and managing many riparian-wetland areas. Improving species composition is one of the primary objectives when designing new grazing strategies to restore degraded riparian-wetland areas. Plants with deep roots that bind the soil will help hold streambanks in place, maintaining channel structure. A study in Utah by Platts and Nelson (1989) found that the plant community types dominated by sedges were better for maintaining bank stability than those types dominated by Kentucky bluegrass. Streambanks that collapse enter the channel as sediment which degrades the habitat of many species of aquatic organisms (cold water biota). Maintaining healthy, viable populations of these organisms is a beneficial use for that stream. As the stream systems are degraded further, the streams often become wider and more shallow. As this happens, the water surface is more exposed to solar radiation and its heat load (another pollutant).

In addition to impacts to beneficial uses, multiple uses are affected as stream systems become degraded. Terrestrial wildlife habitat and livestock forage is lost as the water table drops and streambanks are eroded away. Riparian areas are almost always the most productive areas per unit of land in terms of forage production in the resource area.

- Stubble height

Comment: Cite research showing that a six inch stubble height is the best standard for protecting water quality and improving riparian areas. The composition of the plant material growing should be used to determine optimum beneficial riparian stubble height, not a six inch stubble height as proposed.
Response: Stubble height is an important part of grazing strategies designed to improve riparian-wetland areas in that it serves as an indicator of the level of impact on vegetation caused by annual grazing treatments. The goal is to improve species composition, plant vigor, cover, density, and structure for the purpose of building and maintaining stable streambanks and improving stream channel shape. This is accomplished by managing uses which stress plants, reduce vigor and interfere with reproduction and recruitment of new individuals to the population.

On-site benefits to maintaining a minimum 4-6 inch stubble height are reviewed in literature. A stubble height of at least 4-6 inches is recommended by Clary and Webster (1989), to promote vegetation vigor, improve and maintain streambank stability, and to filter out and hold sediment. Kovalchik and Elmore (1992) observed that livestock use of willows begins at the 4-6 inch stubble height range and increase as stubble height drops below 4 inches.

- Monitoring plan

Comment: The final RMP should include a monitoring plan which ensures that management actions will be modified in a timely manner when needed.

Response: The RMP discusses monitoring methodologies in a general way but does not include a site and time specific monitoring plan. These will be addressed at the allotment/activity plan level.

- Water rights

Comment: (II-22) Water right acquisition questions are currently in Snake River Basin Adjudication Court making a 20-year plan an inappropriate objective.

Response: If future court decisions or directives make this an inappropriate objective it will have to come under consideration for amendment.

- Water developments

Comment: Water developments in Alternative B would be designed and constructed as in other alternatives. The analysis of impacts should therefore be the same between alternatives.

Response: It is true that the impact of each individual water development would be the same in each alternative. The difference between alternatives is in the number of individual projects proposed. The total impact of water developments changes between alternatives because the total number of individual projects proposed changes between alternatives.

- Mining impacts

Comment: (III-12) Distinguish between historical and current mining impacts. Cite specific locations of large boulder streams being impacted by mining. Identify specific impacts seen and describe other possible causes.

Response: The impacts discussed are mainly the result of historical mining activities. Current mining operations will have measures in place to mitigate impacts. The historical impacts include acid mine drainage, tailing piles, dredge mining, and mercury used in the mining process. The areas affected lie mainly in the Jordan Creek/Boulder Creek watershed and in the Sinker Creek watershed.

- Site specific effectiveness

Comment: Discuss the effectiveness of proposed management of degraded riparian areas on a site specific basis.

Response: Site specific discussions of proposed management actions and their effectiveness will occur at the allotment/activity plan level. The large number of acres and miles of resources covered by this plan generally preclude site-specific discussions.

- Trend analysis criteria

Comment: The BLM must commit to using objective criteria for purposes of data replication and trend analysis.

Response: Guidelines exist for evaluating riparian condition based upon a site's potential in terms of Rosgen channel types, vegetation community types, and capability of a site to stabilize streambanks. Trend within this context focuses on greenline species composition and streambank stability. These methodologies are now being used by the BLM.

- Fire impacts in riparian areas

Comment: Describe fire impacts to riparian areas (water quality - ash, hydrophobic soils).

Response: The major concern with water quality impacts from fire has to do with increased sedimentation, the timing of peak flows, and the increased energy of runoff events. The intensity of storm needed to generate runoff is lessened when the vegetative cover is removed from the landscape. Runoff moves downslope more rapidly, and less infiltrates the soil. Peak flows are of greater volume, occur more rapidly, and are capable of transporting greater quantities of sediment.

- Shading effects on water temperature

Comment: (III-19; IVC-4 WATR1) Discuss the effect that shading and deepening of streams have on water temperatures and on fish habitat. Cite data supporting the shade benefits of woody vegetation. The most important temperature regulating factors include the amount of stream flow, the source of water, upstream diversions or impoundments, and micro climate conditions created by woody vegetation. Ascribe portions of temperature impacts to stream flow and to streambank vegetation and canopy overgrowth.

Response: As noted in the comment, streamside woody vegetation is an important temperature regulating factor. Beschta (1997) reports that shade provided by riparian vegetation is very important in the prevention of stream heating by preventing solar radiation from reaching the water surface. He states that for aridland stream systems, reductions in solar radiation levels and maximum stream temperatures can result when adequate shade provided by streamside vegetation is present. He also points out that riparian vegetation provides streambank stability which works to prevent channel widening and shallowing. Shallow, wide stream channels contribute to increased summertime temperatures as more water surface area is exposed to the sun's energy.

The effects of solar radiation on water temperatures is discussed in the Riparian-Wetland Areas section of Chapter III. Data comparing the influence of stream flow versus the influence of vegetation overstory on stream temperatures would be very site specific requiring monitoring data more detailed than is currently available.

- Woody vegetation criteria

Comment: (III-10,11,13; IVC-8) Establish criteria for improving woody vegetation along streams. Consider a 30% incidence of use on current annual growth of any woody vegetation.

Response: Utilization of woody vegetation is an important consideration given the benefits of woody vegetation structure in providing and improving habitat requirements for a number of both terrestrial and aquatic organisms. Kovalchik and Elmore (1992) observed that livestock use the herbaceous component of the vegetative community first, turning to the use of browse species as the availability of herbaceous forage diminishes. In other words, livestock use of willows increases as the herbaceous stubble height in the riparian zone decreases. They noted that use of willows begins at about the 4-6 inch herbaceous stubble height, increases at the 2-4 inch height and becomes the main source of forage at <2 inches of stubble height. Based on these observations, one can conclude that management of herbaceous stubble heights is, in effect, managing for improved condition woody vegetation as well.

Improvement and maintenance of the woody component of the vegetative community is important in achieving satisfactory water quality, fisheries habitat, and riparian condition. For this reason, utilization levels are needed which will promote the establishment and expansion of healthy woody communities. The amount of woody use that is appropriate or acceptable varies by time of the year. For example, moderate to heavy woody use levels in the spring to early summer when the herbaceous community is nutritionally at its peak would indicate problems with the current management scheme. In contrast, moderate use levels in the late summer or fall might not be cause for concern. For this reason, it would be desirable to have woody utilization levels that reflect the season of use.

[redacted]

- Grazing strategies

Comment: Stop grazing riparian areas until functional condition is achieved.

Response: Specific grazing strategies will be developed at the allotment/activity plan level to address site-specific problems. These strategies may include but not be limited to restricting grazing for a period of time, limiting hot-season grazing, changing season-of-use treatments, rest-rotation systems, etc.

- Stream flow trends

Comment: (Alt C) Describe overall trends in stream flow.

Response: Stream flow varies with wet and dry climatic cycles as discussed in the Water Resources section of Chapter III - Affected Environment.

- Impacts on mussels

Comment: Discuss the impacts of management actions on freshwater mussels.

Response: The BLM has no data on freshwater mussel populations, distribution, etc. in the resource area. However, management actions proposed to improve riparian areas and to meet water quality standards should generally benefit cold water biota. These actions should result in reduced sedimentation as streambank stability is improved, and vegetation density, vigor and cover on streambanks increases.

- Streambank changes

Comment: (III-10) Streambank changes occur naturally often associated with climatic events. Specify those portions of changes attributed to livestock, wildlife, wild horses, and natural erosion.

Response: As stated, streams are dynamic systems, responding to changes on a watershed scale caused by natural events (wet and dry climatic cycles, wildfire, etc.) and human induced changes (roads, farming, grazing, etc.). Each watershed and its associated stream will respond to these changes based upon its own unique characteristics (watershed size and shape, geology, soils, stream type, streambank composition, etc.). As land managers, we have no control over naturally occurring events. We can, however, prepare for these events by carefully managing land use activities to encourage watershed and riparian conditions which will best withstand the forces of nature. Management actions have been proposed in the RMP to reduce those man-caused changes which lead to degradation of riparian/aquatic habitat and water quality.

Portioning out streambank stability problems to various sources and causes might be difficult in some cases. Often times though, the evidence is clear that bank stability is being compromised by a particular activity (e.g., banks sheared by hoof action; OHMV use on streambanks, etc.). In these cases specific management actions may be needed to address that identifiable impact. Improving riparian condition and streambank stability by managing the known causes of impacts will make the system better able to withstand the unidentifiable impacts.

- Riparian productivity references

Comment: (III-9) Cite references describing riparian productivity. Cite numeric data describing depressed wildlife productivity.

Response: A list of key wildlife species and their associated habitats found in the resource area is shown in Table WDLF-2. However, population numbers of wildlife relying on riparian areas to supply part or all of their habitat requirements are not available for the Owyhee Resource Area, so we are dependent upon work done elsewhere to document this. Carothers et. al. (1974) as reported in Carothers (1977) found that researched riparian areas in Arizona supported greater densities of breeding birds per acre than other habitat types. Kaufman and Krueger (1982) found 81 bird species and extremely high densities of small mammals at study locations in the Wallowa Mountains in Oregon. Adams and Fitch (1998) comment that an estimated 80% of Alberta Canada's wildlife use riparian areas for all or part of their life cycle.

- Stream improvement

Comment: Substantiate 90% stream improvement over 20 years.

Response: The Draft RMP contained four alternative (A, B C, and D) proposing different management actions to address each objective. The analysis of how well each of these four alternatives addressed each objective was done in Chapter IV. This analysis, or comparison of the four alternatives with one another, requires that assumptions be made concerning the effectiveness or impact that the different management actions will have on resource values. One assumption was that a maximum of 90% of the riparian/stream miles would respond to efforts to improve conditions (10% did not have the potential to improve in condition, regardless of the alternative/management action proposed).

- Springs and seeps

Comment: (II-37, RIPN1) Specify whether or not springs and seeps are covered in the technical definitions of riparian or wetland.

Response: Springs and seeps are included in the technical definition of wetlands. The Riparian-wetland objective has been reworded to specifically include seeps.

- Permanent water

Comment: (III-9.4) Permanent water should be described as both surface and subsurface waters.

Response: This section has been revised to specify both surface and subsurface waters.

- Best management practices (BMPs)

Comment: The RMP does not identify BMPs for forest and woodland management. The state approved BMPs for these nonpoint source activities are the Idaho Forest Practice Rules, IDHW Rules Governing Solid Waste Management, and the Rules/Regulations/Minimum Standards for Stream Channel Alterations.

Response: The BLM must comply with State approved BMPs.

FOREST MANAGEMENT

- Douglas-fir management

Comment: The discussion of Douglas-fir does not acknowledge that many of the significant stands are decadent with many dead and/or severely insect damaged trees. It also does not acknowledge that these stands need to be thinned in order to preserve the health of the stand. These stands have not been thinned for 100 years and are either in, or are rapidly approaching, a condition capable of producing catastrophic fire events. These stands are largely on steep slopes above 6000 feet in elevation and pose a high potential for devastating soil erosion as well as riparian area destruction following a catastrophic fire and climatic events. None of these factors have been presented in the narrative nor are they addressed in the BLM staff preferred alternative C. The authors falsely state that Alternative B does not recognize the role of dead organic material in the Douglas-fir Ecosystem. The role of dead organic materials in the Douglas-fir ecosystem is important only as long as it is not allowed to accumulate to a point that will support catastrophic fire events capable of destroying the system.

Response: Your opinions and observations are appreciated. However, the preferred alternative is to manage Douglas-fir communities for values other than commercial forest values. Most of the Douglas-fir communities lie in isolated stands less than 30 acres in size. Due to the nature of these plant communities if they were to burn, it would likely not be catastrophic and any subsequent destruction of riparian habitat and/or soil erosion should be localized.

The analysis of Alternative B is that it would generally meet the objective to retain forest land biodiversity. However, the alternative description does not clearly indicate whether dead material would remain to improve ecological values.

[redacted]

- Alternative B analysis of forest management

Comment: An analysis of the environmental consequences failed to address the impacts of forest management actions under Alternative B.

Response: An analysis has been added to selectively address logging and salvage logging of approximately 36,200 acres of Douglas-fir.

- Alternative B analysis

Comment: The analysis indicates that Alternative B would not meet objective FORS-2 for using juniper harvest to help achieve a desired plant community. The juniper harvest management action would fully meet the objective by using juniper harvest to help (along with an aggressive juniper control program) restore or develop desired plant communities. Since the objective states that juniper harvest would be used to help restore desired plant communities, the objective would be fully met. Juniper harvest under Alternative B would not have to fully restore all desired plant communities but would only have to contribute to that objective. It does contribute to the objective and therefore does fully meet the objective.

Response: The analysis has been adjusted to show that Alternative B would meet objective FORS-2.

- Juniper removal

Comment: If BLM is serious about removing junipers and doing it in the most beneficial way to the ecosystem, the only possible alternative to be evaluated here would be to fell trees and leave wood and scattered limbs on site. There is then no export of nutrients from the site. Woody material would protect soil and seedlings from grazing, and also provide moist, shaded microsites. Exporting or stripping away cover causes site impoverishment and drying.

Response: The Owyhee Juniper Woodland Harvest Management Plan prescribes methods for juniper harvest including methods similar to this description. The larger tree trunks and branches are removed, but a majority of the plant material is scattered and left on site. This juniper control method can be expensive so other methods of control are also being proposed.

- Juniper as a management concern

Comment: Why is juniper a management concern? The statement, "areas where sufficient juniper exists to warrant management attention" must be explained. What is sufficient juniper to warrant management attention?

Response: The encroachment of western juniper into the sagebrush steppe results in some areas not meeting desired plant community objectives or the Standards for Rangeland Health. If western juniper was determined to be within an allotment it was listed as a concern under the Allotment Management Summaries. This does not mean action would automatically take place to control juniper but it does identify this plant community by allotment for future assessments. These assessments could recommend control or no control dependent upon these assessments.

- Best Management Practices (BMPs)

Comment: The RMP does not identify BMPs for forest and woodland management or energy mineral exploration. The state approved BMPs for these nonpoint source activities are the Idaho Forest Practice Rules, IDHW Rules Governing Solid Waste Management, and the Rules/Regulations/ Minimum Standards for Stream Channel Alterations. Also state laws and regulations governing surface mining (Idaho Surface Mining Act, Idaho Dredge and Placer Mining Act, Ore Processing by Cyanidation) should be referenced.

Response: Site specific BMPs will be developed during the planning process for individual forest and woodland activities. At that time, it is likely that numerous state and Federal laws, regulations and other requirements will be invoked.

The BLM works in concert with state and other federal agencies to minimize and mitigate damage to the public lands as required by numerous state and federal laws, including use of any applicable BMP's, as determined by site specific analysis.

[redacted]

- Monitoring

Comment: The RMP has only a seven page layman's description of monitoring background. It needs a comprehensive programmatic monitoring plan that will specifically guide the monitoring activities across the ORA.

Response: The intent of the monitoring section is to provide a general overview of techniques which will be used to monitor the progress towards meeting land use plan objectives and Standards for Rangeland Health. The techniques are discussed, and they are sufficient to guide management actions necessary to meet the objectives.

- Forest health definition

Comment: The FORS-1 objective fails to define its main concepts by using broad terms such as "forest health", and "vegetative diversity". There is no provision for sustainable forestry; nothing for soil productivity, wildlife habitat, riparian condition, snags, down wood, regeneration, etc. Does "forest health" include watershed health? Aquatic health? Or just tree health? And does vegetative diversity include structure as well as composition? The BLM must provide greater definition to what it means by these terms and exactly what it is striving for in this objective.

Response: The preferred alternative E proposes classifying all Douglas-fir forest as unavailable for forest products. All other resources would be managed under the Idaho Standards for Rangeland Health.

- Juniper objective

Comment: FORS-2. This objective is misguided. It prescribes a single method (juniper & cutting) to meet generalized objectives. This is inappropriate. The real objective should be stated and then the method evaluated against its potential to help meet the objective. The method will often be greatly impacted by the site-specific circumstances. So FORS-2 should be eliminated and incorporated as an action, where appropriate, in other existing objectives.

Response: The objective to manage for a desired plant community where western juniper has encroached into sagebrush steppe plant communities, including the management action of harvesting juniper, gives the public a clear understanding of our intent. The land use plan goal would be to restore some areas to sagebrush steppe community through juniper harvesting. Each site would be carefully evaluated.

- Monitoring techniques

Comment: The monitoring techniques are not designed to track the effects of overstory removal on understory vegetation.

Response: Monitoring techniques include permanent photo points which would easily show the response of understory vegetation to overstory removal. Nested frequency trend would also adequately track such actions.

- Garat Allotment

Comment: The Statement that juniper encroachment exists in the Garat Allotment is incorrect and must not be included in the Final Owyhee RMP.

Response: The standards for listing juniper encroachment as a concern have been revised. Western juniper encroachment is no longer listed as a concern for the Garat Allotment (0584).

[redacted]

WILDLIFE HABITAT

- Wildlife impact documentation

Comment: What habitat disturbance is staff alluding to on (Page II-38, Monitoring) if OHMV use is restricted to existing roads and trails? What literature is cited to support allegation of implied animal disturbance from incidental motorcycle use on existing travel ways? Avoidance and/or flight is a natural response and does not necessarily translate to deleterious animal disturbance. What evidence exists to support the claim that OHMV activity has contributed to the decline of antelope habitat? Which (nongame) species specifically need isolation from incidental motorcycle use?

Response: Even though OHMV use may be incidental and restricted to existing roads and trails in some areas under some alternatives, not every user complies with these restrictions. Unauthorized cross country use is not uncommon even in "limited use" areas and gradual widening of trails will often occur, even where riders are generally following established roads or trails, as riders occasionally cut corners and wander off trails attempting to avoid moguls, puddles, etc. Both cross country use (often resulting in new trail establishment) and trail widening can result in gradual loss and increased disturbance of habitat. Based on recent aerial photo interpretation, approximately 90 miles of new trails were established within an area of 270 square miles in the vicinity of established trailheads between 1987 and 1998. High road/trail densities, even in areas of incidental or low use, can also affect habitat suitability for many species. This has been well documented for high profile species such as elk and grizzly bear but can also affect many other species.

In addition to references cited in Wildlife and Special Status Species sections of Chapter 4, an article entitled "The Ecological Effects of Roads" by Reed Noss, PhD is a good source of information on the impacts of roads on wildlife and habitats. OHMV use within the resource area also includes more than just "incidental use". More intensive use does and would continue to occur under all alternatives, especially in the vicinity of trail heads and during race events. Use levels also will increase over time and some areas of incidental use will very likely be subjected to more intensive use levels in the future.

Although avoidance and flight are natural responses to disturbance for most wildlife species, repeated exposure to disturbance factors, including OHMVs, can result in a wide range of adverse impacts. These can include permanent or seasonal avoidance of otherwise suitable habitat, nest and young abandonment, and depletion of energy reserves and increased stress during critical periods possibly leading to increased mortality from starvation and disease, lower reproductive rates and increased susceptibility to predation.

On page III-17 OHMV activity is listed as one of several land use activities contributing to less-than-desirable habitat conditions for pronghorn antelope. No direct correlation has been established between OHMV activity and the decline of any wildlife species or population within the ORA, however, this correlation has been established in other areas. OHMV activity does and is resulting in damage to vegetation (habitat) upon which antelope and many other species depend for their survival and (at least) temporary displacement/disturbance of antelope and other species as OHMVs pass through occupied habitat.

A detailed discussion of the adverse impacts of OHMV activity on game, nongame and special status animals, including literature citations, is provided in the "Wildlife Habitat" and "Special Status Animals" sections of Chapter IV, primarily under Alternative A.

- Upland game disturbance

Comment: What disturbance to upland game, and specifically sage grouse, would occur as a result of OHMV use. Most breeding occurs in the first two hours of daylight before OHMV users are out. There are dozens of leks adjacent to the main road between Oreana and Jordan valley so why should motorcycle travel on remote roads affect breeding birds? (References Page 11-43, Par. 3: "Limit habitat deterioration and disturbance to upland game by managing OHMV use as specified in Objective RECT 1, Alt. C, Action 1.)

[redacted]

Response: Even though most sage grouse breeding activity does occur from about one hour before to three hours after sunrise, many of the grouse associated with a lek (breeding area) will remain nearby for all or part of the day and a significant portion of nesting may also occur within suitable habitat near the lek. Concentrated or repeated OHMV activity associated with a race or heavily used trail could result in partial or total abandonment of leks and/or nests and increased likelihood of nest predation. Unauthorized cross country travel and bomb runs could also result in direct destruction of nests, eggs and young. Occasional casual use of jeep roads and OHMV trails would be less likely to result in these kinds of impacts. Although several sage grouse leks do occur near this road, it is generally not heavily used, especially during the time of day when leks are most active and travelers typically don't stray from the main road to impact nesting habitat or leks.

- OHMV use in riparian areas

Comment: Page 11-47, Par. 3: "Limit wetland/riparian habitat deterioration and disturbance to dependent wildlife by managing OHMV use as specified in Objective RECT 1, Alt. C, Action 1." I believe the OHMV community would concur with this statement, but let's not single out the OHMV's. And what dependent wildlife has the staff determined needs such protection? Is a time frame closure the answer?
Response: OHMVs have not been singled out. Impacts of various land use activities to riparian habitat and dependant wildlife are discussed in Chapters III and IV and numerous management actions under Objective WDLF 3 and others address preventing or resolving adverse impacts of various land use activities to riparian habitats. Nearly 200 species of wildlife within the ORA are estimated to be partially or entirely dependant upon riparian areas for their habitat needs (See Table WDLF-1). In Chapter III, Affected Environment, Wildlife Habitat and Fishery Habitat sections address importance of riparian habitat to wildlife and fish.

- Degraded riparian habitat conditions

Comment: On Page III-19, in the Wildlife section, the draft EIS blames OHMV activity as contributing to degraded riparian habitat conditions. However, when we read the Riparian-Wetland Areas section on m-12, the draft EIS states that "very localized recreational activities which have all had an impact on riparian areas and water quality." The statement on Page m-19 should be changed to reflect the statement on Page III-12.
Response: Wording in the Wildlife section has been revised to conform to that in the Riparian-Wetland section.

- OHMV increased use

Comment: The statement "A substantial increase in OHMV activity (a projected 37% increase) by the year 2000 associated with very liberal access to the entire resource area via use of existing and historic trails and sand washed would result in a substantial increase in adverse impacts on most wildlife species and habitats." Found on Page IV-B-9 under the Wildlife Habitat section is unsubstantiated. First, there is no evidence that use of the area will increase by 37 percent by the year 2000. Also, Alternative B would eliminate cross country travel over 420,493 acres in the Resource Area. The elimination of cross country travel is not associated with the term very liberal access. In addition on Page IV-B 11, the document states "This emphasis on activity planning, evaluation, monitoring, and nonspecific mitigation makes it very difficult to assess the true impacts of Alternative B with any degree of accuracy." It appears the author of this section took a worst case scenario with respect to OHMV use, assuming that the whole resource area would be open to cross country OHMV travel. Our program contends that emphasizing proper recreation activities by planning, implementation, monitoring and evaluation will generally mitigate adverse effects on wildlife habitat.
Response: The reference to a 37% increase in OHMV activity by the year 2000 was incorrect and has been revised to a 74% increase by the year 2018 as presented in Table RECT-6. The State Outdoor Recreation and Tourism Policy Plans (SCORTP) referenced in this table were produced in 1983 and 1990. SCORTP reports prepared since 1990 have not included this type of information. According to Idaho Department of Parks and

[redacted]

Recreation registration data, OHV registration increased 76% in the past nine years, with a 16.4% average increase per year, a greater rate of increase than that estimated in the RMP. For planning purposes, we make estimates of future use based on a variety of sources, using the best information available. The impact analysis has also been revised to reflect the premise that, under Alternative B, all or most conflicts and adverse impacts could be resolved and/or avoided through site specific planning, monitoring and mitigation, assuming that adequate budget and staffing would be available to accomplish this increase in workload.

- Wildlife population levels

Comment: The authors fail to acknowledge that big game numbers are quite high and are significantly higher than during many historic periods. Wildlife habitat is, and has been, a consideration in management of public lands for many years and the results are evident. This section leaves the reader with the impression that a great deal of restrictive management is needed to restore habitat and wildlife. This is not the case, as evidenced by current numbers of big game that are adequately supported by existing habitat.

Response: According to ongoing monitoring and the latest information provided by the Idaho Department of Fish and Game for the Owyhee Resource Area, mule deer populations are currently lower than they have been in the past but probably above historic lows; pronghorn antelope populations have been relatively stable over the last decade, elk numbers have increased substantially during the last 10 to 15 years and sage grouse numbers have been declining for several decades and are currently at record lows. Other upland game species populations, especially chukar, tend to fluctuate dramatically from year to year primarily in response weather patterns as well as habitat (especially riparian) condition and availability. The vast majority of wildlife species are categorized as nongame for which little status or trend information is available, although populations of many neotropical migrants (birds that nest in North America and migrate to Central or South America for the winter) known to occur in the ORA are declining throughout much or all of their range. Regardless of the current status or trend of specific wildlife populations within the ORA, studies in other areas have demonstrated that OHMV activity can adversely affect a large diversity of species in all major wildlife taxa. Although there is little evidence that OHMV activity has contributed to the decline of any wildlife population within the ORA, it is reasonable to assume that this activity and associated soil and vegetation disturbance has resulted in some adverse impacts to wildlife and that these impacts are likely to increase as use levels increase. With this in mind, it is imperative that some restrictions be implemented to minimize future adverse impacts while providing for a reasonable level of OHMV and other uses of the public lands.

- Waterfowl habitat

Comment: The authors indicate that there is no improvement in riparian habitat for waterfowl due to livestock grazing. The draft does not present any trend monitoring data to indicate that such habitat is not improving or that livestock grazing is the only reason for the lack of improvement. Unless supporting data can be included in the discussion, this statement should be removed because there is no basis for it.

Response: This statement has been revised to omit reference to riparian trend since this type of data is presently very limited. However, concentrated livestock grazing has been determined, through monitoring and general field observation, to be the major reason that 87% of the inventoried riparian habitats are currently in unsatisfactory condition.

- Elk data

Comment: Vol 1 III 17 Right hand column discussing elk has many errors in the last sentence in the 1st paragraph. 1. The limited amount of high elev. summer habitat. 2. Decline of browse stands. 3. Competition with livestock for forage and space. 4. Disturbance and loss of habitat from mining and mineral exploration activity and 5. increasing number of roads 6. Disturbances and loss of habitat associated with logging on private and state lands are all suspected to be limiting factors for elk. ALL six of these statements are false. 1. 60% in Jordan Creek is private land + 10% state land= 70% 2. Where is the data to support this?

[redacted]

3. The elk spend 80% of their time on my private ground where I do not put cattle until Sept 1 so they have no competition and sole use and when I put my cattle in my fields, where they have been all summer, they have used at least 25% of the forage 6. WLDF 2 elk habitat there has not been any sale of timber or. State land, where we logged on private land we reseeded and increased forage. Elk herds are increasing by EXPLOSIVE proportions in WLDF 2. More importantly they are not indigenous to the area. This exhibits a total lack of data - therefore, nearly all false statements.

Response: This paragraph was probably poorly worded and may have inadvertently given the impression that available habitat and various resource uses are thought to be seriously limiting the current elk population. This was not the intent and this paragraph has been rewritten to better reflect the fact that the Owyhee elk population is currently thriving but the long term potential for expansion is limited by a finite amount of suitable habitat, loss of habitat to juniper expansion and, to a lesser extent, activities such as mining (i.e. DeLamar, Stone Cabin and others), road and trail construction and expansion associated with logging, OHMVs and other activities, etc. A variety of resource uses, including the timing, location and intensity of livestock grazing, can and do affect overall elk behavior and habitat quality and availability. These and other conflicts and limitations, including increased depredation complaints and competition with livestock for forage on public and intermingled/adjacent private and state lands, are reflected in the Idaho Department of Fish and Game's management goal which is to maintain elk herds at their current size in big game management units located in the ORA.

- Wildlife forage allocation

Comment: No competitive forage allocations are proposed for big game. Alternative A shows that 136,000 AUMs have been allocated to livestock and nothing for big game. Alternative C proposes to allocate 89,000 AUMs of forage for livestock and nothing for big game. By law, BLM must consult with the Idaho Game and Fish Department and make competitive forage allocations for a reasonable number of big game including Deer, Antelope, Elk and Big Horn Sheep.

Response: Even though wildlife forage allocations are included in many BLM Land Use Plans, they are not presently required by law or regulation. The IDFG does not feel that current survey methods are adequate to provide accurate estimates of numbers of most big game animals within the ORA. As a result, it was decided that we had no sound basis upon which to calculate updated wildlife forage allocations for the Draft RMP. We have decided, however, to use wildlife forage allocations that were generated for the 1981 Grazing EIS as a bases for wildlife allocations in this document and make adjustments to livestock stocking rates and management based on future allotment evaluations and vegetation monitoring. This should provide a much more accurate method of insuring forage availability for wildlife over the long term. AMPs and other activity plans will also include objectives for maintaining or enhancing habitat for big game and other wildlife species known or likely to occur within the planning area (see Alternative E, WDLF 1, Management Action 1.).

- Sage grouse management

Comment: The RMP should require a minimum (8-9 inch) perennial grass stubble height on all allotments with Sage Grouse and include other specific actions to meet nesting and other sage grouse habitat requirements. Areas important to big game should have set livestock forage utilization levels and in some cases, seasonal restraints.

Response: Under Alternative E, SPSS 1, Action 9 proposes to "Identify, protect and enhance key sage grouse habitats and populations by implementing the Memorandum of Agreement on the 1997 Idaho Sage Grouse Management Plan (March 1998). This will include implementation of specific management actions to be developed by the Local Sage Grouse Working Group for Owyhee County". As recommended in this plan, it will be left to this local working group to develop a program/plan for meeting the specific needs of sage grouse in Owyhee County and the Owyhee Resource Area. Specific stubble height and other habitat parameters and implementation procedures will be included in this plan.

[redacted]

- Wildlife big game provisions

Comment: Areas important to big game should have set livestock forage utilization levels and in some cases, seasonal restraints. Limiting livestock utilization of key browse species on crucial winter range is a narrow management approach. Condition of summer/fall range is also important to the condition of big game animals as they leave for their winter ranges. Browse on all big game winter range should receive protection by limiting livestock use of key browse species. Also, provide adequate protection to the transitory big game ranges as they play an important role as the animals migrate to their winter range. Unsatisfactory ecological conditions are not likely to benefit big game and get them in the condition they need to be in for surviving the winter. Allotment summaries should reflect unsatisfactory ecological conditions as a concern for big game.

Response: Browse and other forage utilization limits have been included for all big game habitats under Alternative E, WDLF 1, Action 4 which proposes to "adjust overall grazing management practices to insure that adequate upland forage and cover remains to accommodate the needs of wildlife. Specifically:

- limit utilization of key browse species, as measured in the fall, to a maximum of 30% within deer winter habitat and 50% within all other habitats.
- limit utilization of key upland herbaceous forage species to a maximum of 50% at the time of livestock removal from a pasture.

More restrictive utilization standards may be imposed where necessary to accomplish specific wildlife or other resource objectives". WDLF 1, Action 1 also directs that activity plans include objectives for maintaining or enhancing habitat for those wildlife species known or likely to occur within the planning area (including big game).

Although the impact of unsatisfactory ecological condition on big game or the myriad of other wildlife found in every allotment is not specifically addressed in the Allotment Management Summaries, it is discussed on a broader scale in Chapter III. It would be impossible to list every concern for every species in this appendix .

- Protection in burned areas and wetlands

Comment: WDLF 3, Action 4 - All burns and seedings should be rested for a minimum of three years, and if necessary, due to climatic conditions, until the area is fully recovered. WDLF 3, Action 7 - Protect and enhance all wetland habitat at developed springs and wet meadows, especially those wet meadows providing brood rearing habitat.

Response: A number of factors including vegetation type and condition, soil moisture, weather, burn intensity and others interact to determine how long an area needs to be rested following a wildfire or prescribed burn. Although two growing seasons rest has been established as the minimum, every burn will be evaluated and a determination made based upon these site specific factors, resource objectives and the specific needs of wildlife in that area.

A number of management actions proposed under Alternative E address protection and enhancement of wetland/riparian and /or sage grouse habitat. WDLF 1, Action 1 proposes to "Protect and enhance habitat for wildlife at all developed springs and selected undeveloped springs, wet meadows, reservoirs and stream riparian reaches by fencing to exclude livestock. Close all exclosures to livestock grazing for the life of this plan except where it is determined that controlled grazing is necessary to achieve a specific resource objective". RIPN 1, Action 2 proposes to "Improve or maintain herbaceous vegetation species to attain composition, density, canopy and ground cover, and vigor appropriate for the site". SPSS 1, Action 9 proposes to "Identify, protect and enhance key sage grouse habitats and populations by implementing the Memorandum of Agreement on the 1997 Idaho Sage Grouse Management Plan (March 1998)". LVST 1, Actions 3, 7 and 8 and VEGE 1, Action 5 also prescribe improvement of wetland/riparian habitat through proper livestock management and/or exclusion.

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- Analysis presentation bias

Comment: In conclusion, the language used throughout the RMP about OHMV use is degrading. Terms like damage, deteriorating, conflict, disturbance, and degradation have negative connotations and are exaggerated. I feel there is a bias on the opinion of the BLM staff towards ORV recreation. The environmental consequences are very negative towards OHMV use and grazing and predict only worse case scenarios. This biased negativity must not be allowed to influence the decision on the Draft Owyhee Range Management Plan.

Response: We have reviewed the entire document and made revisions to specific language where appropriate, however, the use of some descriptive terms are unavoidable in order to accurately portray resource conditions or adverse impacts resulting from various land use activities. The environmental analysis has also been reviewed and revised to more accurately reflect the intent of the authors of Alternative B.

- OHMV impacts on wildlife

Comment: Some years ago I was able to participate in a study conducted by the State of Idaho to determine the best off road vehicle sites in the Boise area. The aim was to determine where the OHV funds would be best spent for development of motorized recreation sites. The clear determination was that the Owyhee area was far and away the best area for this purpose. The statements that indicate unacceptable conflicts with wildlife and plant life are unsubstantiated and contradict the findings from this previous study.

Response: Just because this area was selected as the best available site for this type of activity at that time does not resolve the BLM of its responsibility to manage and protect other resource values and to reassess and revise its management strategy as part of the RMP process. Aerial photography has documented the establishment of 90 miles of new trails within a 270 square mile area. This unauthorized trail establishment results in a concurrent increase in soil and vegetation disturbance, loss of wildlife habitat and increased disturbance to wildlife inhabiting this area. Adverse impacts to special status plants and other native vegetation from OHMV activity have been documented throughout the area. Adverse impacts to wildlife are more difficult to demonstrate and while few studies have been conducted in this area, impacts of OHMV activity to wildlife have been extensively studied and documented in other areas and are undoubtedly occurring here as well, to some degree. You cannot disturb habitat (i.e., soil, water, vegetation and living space) without also affecting the animals that depend upon that habitat for there existence.

- Biological assessment

Comment: Procedures for USFWS consultation and concurrence weren't readily apparent but need to be followed. Is there a Biological Assessment prepared or to be prepared on any T& E Species? Will it be available for public review?

Response: A Draft Biological Assessment was prepared and will be finalized and available for review prior to a decision on the Proposed RMP.

- Wildlife data

Comment: Wildlife Habitat Objectives are Quantified, but Unsupported. Page II-38 to 54.
While specific acreage goals are established for particular ungulate and gamebird species, the Draft RMP/DEIS never explains why these specific figures are selected. If the numbers are generic quotas, the selection of the particular quota must be justified. If the numbers represent designations of particular areas of habitat to be developed/maintained, then site-specific supporting data must also be provided.

Response: These acreage figures were derived from GIS maps that were produced primarily from species distribution maps originally prepared for Owyhee Management Framework Plan (MFP) and updated and revised using nearly twenty years of wildlife field observations, various inventory and monitoring efforts and IDF&G surveys. They were intended only to reflect our best approximation of the occupied range of most game species within which proposed Objectives and Management Actions for these species would apply. Acreage figures for some species have been revised in the Final RMP to include omissions or new information.

- Wildlife objectives

Comment: The agency must also consider the compatibility of its goals to improve condition for enumerated species on some lands, while improving habitat for all nongame wildlife and furbearer species throughout the ORA. For instance, many nongame (e.g. coyote) or furbearer (e.g. bobcat) predators may benefit from unsatisfactory habitat for other species (e.g. sage grouse) that would tend to increase prey availability. Stated differently, the Draft RMP/DEIS apparently tries to be "all things to all species" in a manner that may not be scientifically attainable. Once again, the public is entitled to a reasoned discussion explaining why these objectives can be met, or a revision of objectives. While wildlife management is not necessarily a zero-sum game, potential benefits to one species could further one objective to the detriment of a different species/objective elsewhere in the Draft RMP/DEIS. The agency exists, in part, to publicly justify the trading of competing resource values made in the planning process.

Response: The four original wildlife objectives have been replaced by a single more holistic objective which stresses maintaining or improving habitat to support the broad diversity of wildlife species found within the ORA. This should help resolve apparent conflicts between the original objectives, although some degree of real or perceived conflict is probably unavoidable when attempting to manage for the full spectrum of resource values and uses. As discussed in the impact analysis and reiterated in your comment, a management action may benefit certain species/habitats while adversely effecting others. The only way to reasonably insure that the diversity and desired numbers wildlife are maintained or achieved is to maintain or enhance the condition, abundance and distribution of plant communities and special habitat features (as per the new Wildlife Objective) and place reasonable constraints on activities that threaten key habitats or populations or impact significant portions of a species habitat or population.

- Crutcher Crossing allotment

Comment: On pages II-46-49 in Alt C and A- What is the difference between Alt A and Alt C for step 9--'A' limits livestock impacts and 'c' protects AND enhances riparian habitat. Does enhancement come before protection and does it meet the primary objectives? What, specifically, is the problem and plan for Crutchers Crossing allotment, and why is it singled out in this section for closure? No facts are in evidence indicating this need. Please cite facts or remove this section from the RMP.

Response: No difference in meaning was intended between Alternative A and C for this management action. The wording has been revised in Alternative A to conform to that in Alternative C. Enhancement is expected to be a result of protection/exclusion from livestock grazing and this management action does contribute to meeting the stated objectives of improving habitat for a diversity of wildlife and special status species, protection of historic and scenic values, improving recreational opportunities, etc. The original base property attached to the Crutchers Crossing Allotment (at Crutchers Crossing) was purchased by the BLM in 1986?, primarily to ensure long term boater access to the Owyhee River, and all grazing privileges attached to that base property were relinquished at the time. It was subsequently decided that the former allotment would be retained in non-grazing status, in order to protect and enhance a multitude of resource values, at least until its long term status and management could be determined via the land use planning process (RMP). These values include riparian, Class I Visual, Wilderness Study Area, ACEC, high quality recreation (i.e. river floating and access), historic site and important/crucial habitat for a diversity of special status and other wildlife species including California bighorn sheep, bald eagles, redband trout, mule deer, river otter and many others.

- Utilization of key shrub species

Comment: Decrease the current 50 percent level of livestock grazing within the Owyhee Resource Area to 30 percent on brush vegetation, and to none on salt shrub.

Response: Under Alternative E, utilization of key shrub species will be limited to 30% within all deer winter habitats and 50% elsewhere. Key shrub species will be determined on an allotment assessment basis.

- Migration corridors

Comment: The RMP fails to recognize the importance of corridors for migration and dispersal of wildlife. The BLM must analyze both how its actions fragment and connect habitat. Patchy or fragmented habitat can have a deleterious impact on less common or late seral-obligate species and result in their population decline or extirpation.

Response: On page IV-A-10 the importance of retaining large interconnected blocks of habitat outside of treatment areas as travel, migration and recolonization corridors and as habitat for forest interior species and species with large home ranges, is discussed. Alternative E, Action 6 and Appendix FIRE-1 both address these concerns in regards to design of vegetation treatments. These types of impacts will be analyzed and mitigation included as part of the NEPA process prior to implementation of any project or action. It is anticipated that most future vegetation treatments would also be proposed and analyzed within some type of activity plan framework and would be required to meet both RMP and site specific objects for wildlife and special status species.

- Wildlife impacts in adjacent areas

Comment: The BLM fails to analyze impacts of proposed actions on biodiversity and wildlife in relation to management activities, habitat conditions or foreseeable events in immediately adjacent areas (i.e., the Bruneau Resource Area, or the Vale BLM's Jordan Resource l Area and lands administered by Elko BLM just across the state line).

Response: It is beyond the scope of this document to analyze the impacts of proposed management actions and habitat conditions on adjacent BLM resource areas and districts. However, both formal and informal coordination with other BLM offices is an ongoing process and input was solicited from all affected and interested parties, including other BLM offices, during both the initial scoping process and the Draft RMP comment period.

- Habitat condition definition

Comment: b) It is unclear how the BLM defines satisfactory and unsatisfactory habitat. Is this from the point of view of vegetation seral states or from the climax habitat state associated with a particular group of wildlife. These can be significantly different. Therefore it is very important that the BLM define exactly what habitat they are striving for and what would make that habitat satisfactory or not.

Response: This was not clarified in the Draft RMP and it is very difficult to accurately define desired habitat conditions for the large diversity of wildlife species found within the resource area. Partially with this in mind, the four wildlife objectives included in the Draft RMP were condensed into a single, more holistic objective which stresses management to "Maintain or enhance the condition, health, abundance and distribution of plant communities and special habitat features required to support the large diversity and desired numbers of wildlife inhabiting public lands within the Owyhee Resource Area (WDLF 1). Condition of plant communities, in this context, refers to seral state and will vary to some degree but is generally expected to be a mid-to-high seral state capable of meeting all of the various resource objectives and conforming to Idaho Standards For Rangeland Health. Site specific objectives for plant communities will be developed during the development of the AI&Es, AMPs and other plans .

- Wildlife monitoring

Comment: d) The Monitoring appendix (MONT 1) does not state anything about monitoring of wildlife or their habitats. It is unclear where the oversight occurred. Monitoring should be occurring and if data is available, it must be added to the appendix.

Response: The section describing techniques for monitoring wildlife and their habitats was developed but inadvertently omitted from the Monitoring appendix. It has been included in the Final RMP.

[redacted]

- Vegetation treatment impacts

Comment: What evidence does BLM have that its vegetation removal projects will contribute to more stable wildlife populations or higher quality hunting opportunities? Does IDF&G agree that juniper treatments will have mostly beneficial impacts to big game habitat? BLM here equates wildlife with only hunting opportunity - a truly one-sided view.

Response: Projected impacts of vegetation treatments to wildlife under all five alternatives are discussed in more detail in Chapter IV-Wildlife Habitat and Special Status Animals but are generally expected to be beneficial to the majority of wildlife species, under all but Alternative B. The treatment acreage proposed under Alternative B is expected to result in too great of a loss of woody vegetation to support the large diversity and desired numbers of wildlife dependant upon these habitats, however, some level of juniper treatment is necessary to prevent the loss of herbaceous and shrub vegetation/wildlife habitat that occurs over time as juniper continue to encroach and eventually dominate more and more sites. Almost no studies have been conducted addressing the impacts of juniper treatments on wildlife populations but wildlife diversity is known to be closely tied to vegetation and structural diversity and it is, therefore, reasonable to assume that if large areas are dominated by a single vegetation species to the exclusion of most others, wildlife diversity and numbers within those areas will be reduced. Western juniper is a valuable native tree that provides habitat for a large diversity of wildlife species but needs to be controlled in the absence of natural occurring fires of the size and frequency that historically limited its expansion beyond the climax shallow breaks ecological sites.

Comments submitted by the IDF&G specifically address the invasion of western juniper into shrub steppe communities and its adverse affects on productivity of these habitats over significant portions of the ORA and list this as one of the habitat factors limiting both mule deer and sage grouse populations. Specific to mule deer, they make the following comments: "This loss of sagebrush communities is generally believed to reduce availability and quality of mule deer habitat and therefor have a negative impact on mule deer populations. Mountain mahogany stands that historically provide important mule deer habitat in portions of the ORA have been lost to juniper invasion and insect infestations". They recommend that "Juniper should be controlled in areas where it is invading shrub steppe communities to reduce the loss of mule deer habitat".

The BLM is very aware that the value of wildlife extends far beyond providing hunting opportunities. RECT IV-A, C and D have been corrected to include those other values.

- Winter grazing impacts

Comment: What proof does BLM have that winter grazing has "improved habitat conditions" - for antelope? for cattle? The BLM has recently begun winter grazing bit by bit on a number of allotments without a full analysis if its impacts. The RMP must analyze impacts of increased winter grazing on habitat for pronghorn and nongame species, including small mammals and songbirds.

Response: Winter grazing has been occurring on some allotments for many years and has resulted in significant increases in the occurrence of winterfat, a valuable forage species for pronghorn and cattle, and a diversity of native perennial grasses that have nearly disappeared from many of the other low elevation ranges that have been subjected to decades of spring grazing. As discussed in Chapter IV, some competition for winter forage could occur between cattle and pronghorn, but utilization levels are monitored and controlled and it is felt that the benefits to be derived from controlled winter (versus spring) grazing outweigh the adverse impacts. The impacts of winter grazing to other wildlife are not well known, but are expected to be far less than traditional spring grazing that can result in disturbance to ground and shrub nesting birds, reduced plant vigor, forage and seed production, increased soil compaction and damage to small animal burrows due to wet conditions. Late winter grazing can also improve nesting habitat for long-billed curlews by reducing the height of vegetation just prior to the nesting season.

- Bat management

Comment: Bats: A recent survey for bats found seven BLM sensitive species in the Owyhees (Perkins and Peterson 1997). Important habitat components for some species may include forested stands or riparian zones where tree age class exceeds 125 years. The RMP must specify specific management actions which will be taken for bats, and discuss impacts of proposed actions on these species.

Response: A number of proposed management actions should result in improved habitat for bats. These include all those directed towards protection and improvement of riparian habitat and protection of all Douglas fir habitats from harvest. Alternative E, Action 16 also proposes to "install gates at entrances to caves and abandoned mine shafts where disturbance to bat populations is determined to be a problem". Where lacking, Chapter IV-Wildlife Habitat and Special Status Animals sections have been amended to include impacts to bats.

- Wildlife data

Comment: Table WLDF- 1. The animal associations in this Table are worthless filler. It is not based on site-specific information for the ORA. For example, there are no scrub jays and no blue grouse in the Owyhee Uplands. "'Loggerhead strikes(sic)" are much more common in sagebrush communities than mountain mahogany in the ORA. California quail are not a native species in the ORA. Wheatgrass seedings do not have "representative" species. Tundra swans do not nest in the ORA. BLM must provided detailed information and good maps for wildlife species distribution and habitat type in the ORA.

Response: We agree that the animal associations provided very little useful information and did contain some errors and poor species selections. This portion of the table has been omitted from the Final RMP. Blue grouse were introduced/reintroduced into the South Mountain area in 1983 and subsequent observations reported for several years. However, there have been no recent reported observations of blue grouse in the area and this species may no longer occur. Some wildlife distribution maps have been updated/corrected for the Final RMP. Good distribution information for many species is not available and detailed maps not easily incorporated into a document of this type.

- Brush burning data

Comment: There is a discrepancy between figures here. S4 gives this figure: 34,100 acres of brush burn. IV-C-9 gives 20,500 acres of sagebrush habitat to be burned. Again, what is "brush"? Which figure is correct?

Response: The 20,500 acreage figure was calculated by multiplying the 34,100 acres targeted for treatment by 60% which is the percentage of the treatment area that is estimated to actually burn. Brush, as used in describing vegetation treatments, generally refers to sagebrush. Although not specifically targeted, other shrub species would also be affected.

- Vegetation condition impacts

Comment: What evidence does BLM have that increased forage production will result - burns kill sagebrush, bitterbrush, mountain mahogany, and negatively effect Idaho fescue (previously discussed) and other native bunchgrasses and forbes. So it is impossible to understand what forage - besides annual weeds - will increase in long-term production. BLM must provide sound scientific and site-specific evidence for its conclusions.

Response: Herbaceous forage, including most native perennial grasses and forbs, will increase following a fire, primarily in response to the loss of competing woody vegetation and the flush of nutrients released into the soil during the fire, although forb production will often return to near pre-burn levels within a few years after the burn. The level of forage production response will depend upon a number of factors including the density and vigor of desired forage species prior to the burn, soil moisture during and precipitation following the burn, intensity of the burn, etc. Many woody species, including sagebrush and most bitterbrush and mountain mahogany, will be killed by burning and will require 15 to 20 years to fully recover. Others, such as shiny-leaf ceonothus, aspen, chokecherry, bittercherry, willows and others, are quite fire tolerant and stands will rapidly become reestablished or even expand after a fire. As discussed in Chapter IV, if not controlled by some type of treatment, juniper will eventually dominate increasingly large areas resulting in the gradual loss of most shrubs and herbaceous vegetation and associated wildlife values.

SPECIAL STATUS SPECIES - PLANTS

- Special status species policy

Comment: Objective SPSS-1 places all special status species (threatened, endangered, sensitive, state listed, etc.) into a single category for management purpose, but listing under the Endangered Species Act is a formal decision which carries specific legal implications and management responsibilities. Imposing such stringent management constraints on non T&E species places limits on management options that could be used to improve or enhance other resource values. By placing all species in the same category, the bureau is either advocating T&E management for all species or is not providing the level of management for T&E species as is required by law.

Response: All Federally listed Threatened and Endangered species are given full legal protection under the Endangered Species Act (ESA) of 1973, as amended. For all other special status species, it is BLM policy to manage habitat to minimize the need for future listing as Threatened or Endangered (BLM Manual 6840). Federal candidate and globally rare species receive a higher priority of concern in the application of management actions than do those denoted as sensitive only. However, to minimize the risk of elevating a species to a higher category, all special status species are considered during the review of management actions.

- "Limited" designation should protect plants

Comment: "Limit deterioration of special status plant and animal species and their habitats by managing OHMV use as specified in RECT 1:1 for Alt. C." If OHMV's are limited to existing roads and jeep trails this goal will be accomplished. The elimination of cross country travel should benefit special status plants. The special status plants would only be affected if the plants were growing in the routes being used. The conclusion section on Special Status Plants with respect to OHMV activity is incorrect. It was said at a SIDRA meeting that the areas near the trailheads where Mulford's Milkvetch was found could be fenced off. Is just three years of inventories enough to determine if a plant is truly rare? Have other areas along the Snake River with similar topography been inventoried?

Response: Some OHMV trails do pass through special status plant habitat, as many of the trails and sand washes on the Owyhee Front have not yet been surveyed to determine the presence/absence of these species. With over 750 miles of roads and trails to evaluate, this enormous task has not been completed. Additionally, between 1987 and 1998, more than 90 miles of new trails have developed within a 270 square mile portion of the Owyhee Front. None of these were established by the BLM. Most were established by casual users, and some developed during racing events. Nearly all of these trails developed in an area currently designated as "limited to existing roads, jeep and motorcycle trails and sand washes." Obviously this "limited" designation does not preclude the development of new trails, some of which have developed or widened into special status plant habitat. With OHMV activity projected to increase by 70% over the next twenty years, trail proliferation would likely continue under the Alternative B management scenario. Indirect impacts such as habitat degradation and fragmentation would continue, in addition to the direct impacts to the plants themselves. For these reasons, we believe our conclusion section with respect to OHMV activity was accurate.

With regards to Mulford's milkvetch, it has been a species of concern in Idaho since 1977 (Henderson et al.). The first status report was developed in 1980 (J. A. Kennison). Subsequent inventory reports have been written (Moseley 1989, Moseley et al. 1992) and localized inventories have been done, in addition to the three year inventory conducted on the Owyhee Front. The results from these reports and inventories support the special status species rank for Mulford's milkvetch.

- Map deficiency

Comment: Special Status Species are labeled only as "plant" (see Map SPSS-1). Such non-specific designations not only have the potential of covering ANYTHING the Bureau can use as an excuse, but totally eliminates any possibility of management of legitimate species because they are not identified.

[redacted]

Response: The scale of the maps used in the RMP does preclude a high level of detail, however we feel it adequately displays areas where special status plants are concentrated. Labeling the specific plant names was not feasible at this small scale. The data displayed on the maps is based on species observations reported by many different botanists, especially during the last twenty years. The original, species specific data from which the RMP maps were produced is stored at both the IDFG Conservation Data Center and the Lower Snake River District Office on topographic maps. These topographic maps are referred to extensively by the BLM prior to any proposed on-the-ground management activities.

- Alternative B evaluation - OHMV use

Comment: On page IV-B-13 the draft states that Alt B would provide very liberal access by recreational vehicles to the entire resource area resulting in adverse impact to many of the 31 sensitive species. Alt B proposes to monitor recreational vehicle uses and provide management guidance to avoid adverse impacts to all significant resources. How did the BLM reach this conclusion, given the true management proposals in Alt B?

Response: While this alternative proposes to "monitor recreational vehicle use" and "provide guidance to avoid adverse impacts to all significant resources", it also proposes to allow access to all existing and historic trails and sand washes. In addition to this, OHMV use is projected to increase by 70% over the next twenty years. Even under the current "limited" designation, trail proliferation has occurred in the Owyhee Front, with 90 miles of new trails developing between 1987 and 1998. This trend would be expected to continue, especially under the "looser" definition of a "limited" designation in Alternative B, and the difficulty in responding rapidly enough to avoid adverse impacts to significant resources. Therefore, adverse impacts to special status plants are projected to be greater under Alternative B than under all other alternatives except possibly Alternative A.

- Alternative B evaluation - ecological status

Comment: On page IV-B-13 the draft projects a downward trend in ecological status, however, even the analysis of ecological conditions on pages IV-B-6 & 7 show significant increases. Why are there such directly contradictory statements and information in the draft?

Response: The Proposed RMP and Final EIS have been modified to address this concern.

- Allotment management summaries

Comment: In my allotment 0570 you have a resource concern for Special Status Species present (plant, redband trout) and you are going to manage to increase populations. Where is the data to justify supporting this conclusion? Which species are you referring to? Why are special status plant species not specifically identified in the allotment management summaries? What was the date or last date these special status plant species were inventoried? Shouldn't more complete vegetative inventories be done before the claim that these species are present? It appears to me that the Bureau does not have any information on actual locations or names of these "special status plant species" listed and is assuming that special status plants are found in all allotments without any data to support this assumption. The Bureau needs to provide a species list and allotment list that shows what special status specie(s) is/are present in which allotment in the Final EIS.

Response: Bureau policy is to "manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act." The agency's primary objective for special status species management is to prevent the need to list a species as Threatened or Endangered. As the policy states, this might require maintaining populations at its current level, or, for some species, increasing populations might be necessary to minimize the risk of extinction. The specific names of the sensitive plants were not displayed in the individual allotment summaries in order to provide them with better protection. When working at the individual allotment level, this specific information is made available to interested publics. The data displayed on the maps and in the allotment summary tables originates from species observations reported by many different botanists, primarily during the past twenty years. The original data from which the RMP maps and allotment summary tables were produced is stored at both the IDFG Conservation Data Center and the Lower Snake River District Office on topographic maps.

[redacted]

- Lack of data

Comment: The Draft RMP alleges impacts to plants without data.

Response: From 1994-1996, the BLM surveyed approximately 53,000 acres of the Owyhee Front for special status plants. In 1997, approximately 9000 acres in the adjacent Bruneau Resource Area were also inventoried. During these surveys, special status plant populations were mapped, population estimates were made, and any observable impacts were recorded. Direct OHMV impacts to several different plant species were documented during this time period. Documented impacts include a decline in special status plant numbers at some sites due to habitat degradation, and physical crushing of plants resulting in mortality. Such OHMV related impacts to special status plants and their habitat have been observed elsewhere in the resource area over the past ten or more years. The appropriate sections of the Proposed RMP and Final EIS have been revised to include this information.

- Map scale

Comment: The scale of the map pertaining to special status species is too small to be of any use. The map needs to identify the species by name and specific area of location. There needs to be another table listing the inventories the BLM claims have been done "through the whole area."

Response: The scale of the maps used in the RMP does preclude a high level of detail, however we feel it adequately displays areas where special status plants are concentrated. Labeling the specific plant names was not feasible at this small scale. The data displayed on the maps originates from species observations reported by many different botanists up through 1994. It does not include data from the Owyhee Front 1995-1996 special status plant inventory, as this data was not yet entered into GIS at the time the RMP went to print. The BLM never claimed to have inventoried the entire resource area. Rather, we did survey approximately 53,000 acres of the Owyhee Front, between Reynolds Creek and Fossil Creek, from 1994 and 1996. Much smaller scale surveys have generally been done prior to that time.

- Causes for rarity

Comment: The RMP fails to clearly identify causes of low numbers of plants, and specify activities currently threatening or impacting these species. A thorough analysis of management activities which could improve habitat conditions must be included. Clearly identify cause of low numbers, and detail necessary management changes to solve problems. Is a plant rare because it grows only on a limited soil type, or is it rare because it is highly palatable to livestock, or susceptible to trampling? Is mining destroying habitat? How can management be changed to enhance habitat? Additional information on location and specific habitat types must be included in the RMP - especially plant community association and location. (See, for example, Table 3-26 in 1996 Challis Resource Area Draft RMP). The RMP fails to clearly identify causes of low numbers of plants.

Response: Additional habitat and rarity data have been provided in the Proposed RMP and Final EIS (see Chapter 3, Table SPSS-1, and various Chapter 4 analyses). Species specific locality data has not been provided, although the special status plant map (SPSS-1) has been updated with all locations known as of 1998. Precise locality data is not included in an effort to ensure protection of these species.

- Enhancement and restoration of habitat

Comment: BLM's goal must be to enhance and restore habitat to increase populations of rare species. We are not aware of any special status plant or animal species whose numbers cannot be assumed to have declined significantly due to grazing, OHMV use, mining, etc. BLM cannot simply accept the diminished population status/habitat condition as acceptable.

Response: In the Owyhee RMP, our objective states that we will "manage special status species and habitats to increase or maintain populations at levels where their existence is no longer threatened and there is no need for listing under the Endangered Species Act...". Preventing the need to list a species as Threatened or Endangered is bureau policy, however enhancing or restoring habitat to increase populations of all rare species is not feasible. While your assumption that certain species of plants and animals have declined significantly due to various activities is correct, there are also many species for which our data are insufficient to make this determination.

[redacted]

SPECIAL STATUS SPECIES - ANIMALS

- Allotment 0570 data

Comment: Appendix A 65 SPSS1 In my allotment 0570 you have a resource concern for Special Status Species present (plant, redband trout) and you are going to manage to increase populations. Where is the data to justify supporting this conclusion? Please provide this data. Which species are you referring to?? Please provide this data also.

Response: The referenced objective (SPSS 1) is to increase or maintain populations of special status species. This Appendix has been updated to include sage grouse as a special status species now that it is listed as a BLM Sensitive Species. Although no information specific to this allotment is available, sage grouse are known to occur here in limited numbers. Sage grouse numbers have declined dramatically throughout its range in the last several decades and are very likely to be petitioned for listing as a federally threatened or endangered species with in the next few years. This makes it imperative that we take steps to protect and/or improve sage grouse habitats and populations, especially key habitats including nesting, early brood rearing and wintering, if listing is to be avoided. Allotment 0570 also contains redband trout habitat along Jordan Creek and the East Fork of Reynolds Creek that has been determined to be in unsatisfactory condition (map FISH 1). Although trend data does not indicate a decline in the density of redband trout, fish habitat is highly dependant upon the condition of associated riparian areas. A diversity of special status neotropical migrants and bats are also known or expected to occur on this allotment, although little or no specific population or habitat data has been collected.

- Special status species objective

Comment: The Objective for SPSS and management actions suggested in the BLM staff preferred alternative C do not correspond with bureau policy quoted in the narrative on page III-20. The stated policy is "For all other special status species, it is BLM policy to manage habitat to minimize the need for future listing as Threatened or Endangered." The Objective indicates that populations will be increased or maintained at levels where their existence is no longer threatened . ." Sensitive species are not classified or treated the same as threatened species. Several management actions are specifically included for increasing Populations and not management of habitat as called for in the BLM policy. Ultimately, populations of game species where take regulations exist, and all other wildlife species are the responsibility of the State of Idaho not the bureau. Bureau efforts should be confined to habitat management as is proposed in Alternative B.

Response: Objective SPSS 1 applies to both plants and animals and, in the case of special status plants not listed as federally threatened or endangered, BLM does have primary responsibility for management of populations. However, none of the management actions proposed under Alternative C address direct management of populations of special status species. They are all directed at either protecting and/or enhancing habitat, protecting species and habitats from impacting activities or facilitating the reintroduction of certain species into suitable habitats. BLM policy states that "If sensitive species are designated by a State Director, the protection provided by the policy for candidate species shall be used as the minimum level of protection" (BLM Manual 6840). The BLM policy for management of "Candidate Species" states (in part) that "The BLM shall carry out management, consistent with the principles of multiple use, for the conservation of candidate species and their habitats and shall ensure that actions authorized, funded or carried out do not contribute to the need to list any of these species as T/E". It also directs BLM to develop and implement management plans for candidate species that include specific habitat and population management objectives designed for recovery, as well as management strategies necessary to meet those objectives. BLM coordinates closely with IDF&G when developing management plans, EAs/EIS's, etc. to insure that their concerns are addressed and to insure that specific wildlife habitat and population objectives and management actions do not conflict with goals and objectives addressed in their 5 Year Species Management Plans.

[redacted]

- Alternative B analysis

Comment: Special Status Species, page IV-B-13. Alternative B is not properly represented and the projected adverse impacts listed in this section are in error. For example the discussion indicates that there would be an 11% increase in stocking levels that would have an adverse impact on special status species. If monitoring information indicated that such an adverse impact would result from increased use, the increase would not occur. Therefore, it is impossible for the adverse impact to ever occur. This is a totally false statement as to the environmental consequences of Alt. B.

Response: The impact analysis has been revised to reflect the premise that, under Alternative B, all or most conflicts and adverse impacts could be resolved and/or avoided through site specific planning, monitoring or mitigation, assuming that adequate budget and staffing would be available to accomplish this increase in workload.

- Special status species map

Comment: VOL 3 T-48 Special Status Species: The scale of the map pertaining to special status species is too small to be of any use. The map needs to identify the species by name and specific area of location. There needs to be another table listing the inventories the BLM claim have been done "through the whole area." How was this information (on special status species status and distribution) obtained - through a systematic search of the ORA, or from incidental observations and Conservation Data Center records? How recent are the observations?

Response: Maps included in the RMP are intended only as a general reference and we agree that they are of limited value in identifying specific populations or habitats with any degree of accuracy. Providing more detailed, site-and-species-specific maps or other information poses a significant risk of disturbance and/or harassment to those populations and, for this reason, it was decided not to make this information available to the general public. The Allotment Summary Appendix and ACEC descriptions in Chapter III (updated for the Final RMP) both provide a lists of special status animal species within each allotment/ACEC for which some information is available, but is still incomplete because of the limited amount of site specific information available for the majority of species.

The only inventory completed in recent years that included a significant portion of the ORA is a multi-year sage grouse lek survey that was conducted under a Challenge-Cost-Share Agreement with the IDF&G between 1994 and 1998. This included a large portion of the known sage grouse breeding range within the Owyhee, Bruneau and Cascade Resource Areas and resulted in the discovery of relatively few new lek locations. A separate table would probably not be warranted.

As described in Chapter III, information concerning special status species occurrence, distribution and, in some cases, status was obtained from a variety of sources including field guides, published and unpublished studies and surveys, the Conservation Data Center and incidental field observations. Most surveys, studies and reported observations are from the mid-1970s to present.

- ACEC consideration

Comment: Existing and proposed ACECs under all alternatives focus primarily on preserving special or unique or scenic plant habitats or archaeological sites. Special management areas for sensitive or rare animal species are lacking, with the sole exception of the Owyhee River Bighorn Sheep ACEC. Of 17 ACECs listed in Alt. C, II-155, designation of 16 do not focus primarily on wildlife values. Description of ACECs III-46 to III-51 provides specific lists of plants, and virtually ignores animals. Although Boulder Creek ACEC is listed under wildlife values, the only animal discussed is redband trout, which elsewhere in the RMP is discussed under Fisheries. There are more species of rare animals in the ORA than rare plants. BLM must put the same effort into identifying special management areas for animals as it has for plants. When will BLM propose a sage grouse/pygmy rabbit ACEC, or a collared lizard ACEC?

Response: As you have mentioned, the existing Owyhee River Bighorn Sheep ACEC is the only ACEC designated or proposed specifically for the benefit of wildlife. However, it encompasses

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more area than all other proposed ACECs combined and includes habitat for a large diversity of other wildlife/special status species including wintering mule deer and bald eagle, ferruginous hawks, several special status species of bats and neotropical migrants, sage grouse and redband trout . Although not an ACEC, the Snake River Birds of Prey National Conservation Area was also designated and is managed primarily for the benefit of raptors and their prey. Nearly 57,000 acres of this area is included within the ORA. This area also in includes important habitat for a large diversity of wildlife/special status species including much of the ORAs bald eagle wintering and long-billed curlew nesting habitat and several special status species of reptiles, bats and neotropical migrants.

Your observation that wildlife/special status species values were generally overlooked in the ACEC descriptions is correct and this oversight has been rectified in the Final RMP. There are a number of reasons why additional ACECs were not proposed specifically for wildlife. These include 1) much of the known crucial habitat for wildlife is already included within existing/proposed ACECs or other special designations; 2) a large percentage of special status and other wildlife species are closely associated with or dependant upon aquatic/riparian habitats which are scattered throughout the ORA and already targeted to receive a great deal of special management attention through implementation of standards and guides, numerous RMP objectives and management actions and others; 3) crucial habitat areas for many special status species are not yet well defined or, like sage grouse, are widely scattered over a very large area that would be difficult to include within an ACEC; 4) because of the lack of good information concerning the true status of many BLM "Sensitive Species" and IDF&G "Species of Special Concerns" it would be premature to propose ACECs or other special management designations at this time; and 5) a variety of legal mandates including the Endangered Species Act, NEPA, FLPMA, Standards and Guides and others along with RMP objectives and management actions, existing BLM policy, Memorandums of Understanding (MOUs), Conservation Agreements and Strategies, various resource activity plans and others provide a more-than-sufficient mandate and numerous opportunities for management of special status species without the designation of additional ACECs.

- Documentation for species

Comment: The FEIS should document special status species in the RMP. This documentation should be similar to the information and analysis provided in the draft Biological Assessment for the species that have been listed under the Endangered Species Act of 1973, as amended. This documentation may be used for evaluating whether or not the preferred alternative would likely benefit most sensitive animal species. Some information on effects of the proposed actions on these special status species is already provided in the DEIS (page IV-C-18). However, the FEIS needs to provide an analysis based on detailed information on current status, distribution, habitat needs, and other actions which may affect sensitive species. For example, inclusion of information avilable on the redband trout and the spotted frog in the final RMP and FEIS could help guide specific management decisions. Project activities, such as spring head development, fencing of specific habitats, and control of OHMV use, could have significant impacts on special status species. The Final RMP and FEIS should provide information sufficient to guide decision makers on specific actions that may affect special status species.

Response: We are not sure what is meant by documenting special status species in the RMP. Tables SPSS-1 and SPSS-2 provide lists of special status plants and animals along with soil and vegetation associations for plants and habitat associations and seasonal occurrence for animals. Other information on special status species occurrence is provided in the Allotment Summary Appendix (revised and updated for the Final RMP) and has been added to the descriptions of proposed ACECs in Chapter III. If you are suggesting that we provide a detailed record of survey results and observations, we do not feel it is beneficial to publish detailed information which could result in increased disturbance or harassment of crucial habitats or populations. Considering the lack of available information concerning status, distribution or limiting factors for most special status species within the ORA, it would be difficult, if not impossible, to provide a detailed analysis of the impacts of each proposed management action on each of these species. Site specific special status species information, where available, was used in formulating proposed management actions for Alternative C and will continue to be used during subsequent activity planning and project development.

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- Site specific studies

Comment: The entire section on Special Status Plants on Page IV-A-19 through IV-A-22 uses studies that are not site specific to the Owyhee Resource Area and assumes that OHMV activity will increase 37 percent by the year 2000. The premise that OHMV activity will increase that much is unsubstantiated. Our program would like to see the data that suggests that OHMV use has negatively impacted special status species animals in the Lower Snake River District. If no data exists, than the studies cited in this section should be struck from the EIS because they are purely speculative.

Response: Pages IV-A-19 through 22 discusses Special Status Animals, not Plants. The reference to a 37% increase in OHMV activity by the year 2000 was incorrect and has been revised to a 74% increase by the year 2018 as presented in Table RECT. The State Outdoor Recreation and Tourism Policy Plans (SCORTP) referenced in this table were produced in 1983 and 1990. SCORTP reports prepared since 1990 have not included this type of information. According to Idaho Department of Parks and Recreation registration data, OHV registration increased 76% in the past nine years, with a 16.4% average increase per year, a greater rate of increase than that estimated in the RMP. For planning purposes, we make estimates of future use based on a variety of sources, using the best information available.

Based on recent aerial photo interpretation, approximately 90 miles of new trails were established within an area of 270 square miles between 1987 and 1998. This unauthorized trail establishment results in a concurrent increase in soil and vegetation disturbance, loss of wildlife habitat and increased disturbance to wildlife inhabiting this area. You cannot disturb habitat (i.e., soil, water, vegetation and living space) without also affecting the animals that depend upon that habitat for there existence. Only one study, a two year assessment of the impacts of OHMV activity to special status snakes and other reptiles, was conducted in 1997 and 1998. Preliminary results of this study have revealed that intensive OHMV activity in the vicinity of trailheads may be precluding the use of sand washes by western ground snakes (Munger pers. com. 1998). Sand washes were observed to be a preferred habitat for this species in nearby areas with little or no OHMV activity. Although only one study has been conducted in this area, impacts of OHMV activity to wildlife have been extensively studied and documented in other areas and are undoubtedly occurring here as well, to some degree. Using the results of studies conducted in one area to project potential impacts of that same type of activity in another area is a valid and accepted practice as long as any differences in the level of the impacting activity, species/habitats being addressed are acknowledged and accounted for. Research would be of little practical value for management if its findings could not be extrapolated for use elsewhere.

WILD HORSE MANAGEMENT

- Population increase

Comment: Because the wild horses population keeps increasing, how can the staff conclude that motorized recreation use negatively impacts the wild horses?

Response: The Owyhee Wild Horse Herd management Areas (HMAs) collectively represent the maximum distribution of wild horses in the planning area. Care has been taken in their delineation to include the entire area used by the wild horse population under extremes in weather and resource condition so that biologically viable management units result. Monitoring components of the habitat area concludes that because of increased motorized recreational uses, wild horses are becoming more concentrated and are more commonly leaving HMAs. The regulations provide that wild horse management be limited to lands where herds existed when Public Law 92-195 was passed December 15, 1971. A considerable number of wild horses that were found in non-HMA areas have been gathered and removed from Public lands.

The main reason for limitation on motorized recreational uses is habitat deterioration, not impacts on population productivity. However, mortality because of motorized recreation has been documented year-long, particularly during the foaling season of March 1 through June 30. The BLM is mandated by law to protect the wild horses.

- Wild horse range

Comment: Establishment of a wild horse range which eliminates livestock grazing is contrary to the law.
Response: In alternative C, a portion of the Hardtrigger HMA was proposed for a Wild Horse Range. The propose range would effect livestock grazing on the Rats Nest and a portion of the Shares Basin Allotments only. This area would have been principally managed for wild horses, but not necessarily exclusively, other compatible multiple uses would be allowed. This area was proposed as a wild horse range because of the outstanding opportunity for public viewing. However, even though the law allows designation of a wild horse range, the preferred alternative (E) has not carried the proposal forward.

- OHMV route closures

Comment: Why do 90 miles of trails need to be closed in alternative C?
Response: Trail closures in this alternative were identified to protect critical habitat and/or living space for wild horses and wintering antelope population.

- Vegetation utilization limits

Comment: Livestock grazing within the herd Management Areas needs to be limited to leave at least sixty percent (60%) before plants go dormant, so sufficient feed remains for wild horses during the winter season.
Response: Utilization by livestock is generally limited to fifty percent (50%) in grazed pastures and no use in rested pastures. This management action has generally been sufficient to provide forage for the wild horses as well as for healthy rangelands.

- Conflicts with motorcycles

Comment: What do you mean by the statement that "conflicts have existed for years between spring time motorcycle use and livestock grazing"?
Response: In the late 70's and early 80's, the BLM started getting numerous reports from livestock producers that they were finding gates open, and wires cut along management fences. The BLM found that these problems were commonly around motorcycle trails, particularly on the Owyhee Front. As a result of these problems, the BLM installed over 40 OHV cattle guards in the mid to late 80's. However, some problem areas were within HMAs and gates had to remain so they could be opened to allow for wild horse movement after the livestock grazing season. Also, reports from livestock producers indicate considerable vandalism to pipeline watering systems that are in close proximity to existing OHMV trailheads.

- Multiple use in wild horse herd areas

Comment: Consistent with principles of the Taylor Grazing Act, FLPMA, and PRIA, congress provided for continued multiple use when it enacted the Wild and Free-Roaming Horse and Burro Act.
Response: The Wild and Free Roaming Horse and Burro Act provides for the protection of the animals from death and harassment at the hands of man, yet keeps with the multiple-use management concept for the Public lands. However, the BLM recognizes that some types of uses are incompatible when trying to provide for the health of the animals and maintain a viable balance between the numbers of animals protected and the continued availability of suitable habitat. Under alternative E, the preferred alternative, compatible multiple-uses will continue in the HMA's.

- Genetic management of wild horses

Comment: There should not be tax payers money being spent on genetics and periodic relocation of wild horses between HMA's.
Response: In determining the number of wild horses to be maintained in a Herd Management Area (HMA), consideration must be given to population limits which are practical and biologically sound. At lower population levels like in the Owyhee herds, considerable weight must be given to the potential for and the effects of inbreeding while managing for a healthy, vigorous herd. Inbreeding in mammal population has

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been shown to have deleterious effects on survival, reproduction, growth rate, and adult size. The possible effects of inbreeding are compounded in wild horses because fewer than all the adults normally participate in breeding and the breeding structure is polygynous.

- Developments in herd areas

Comment: Water developments, management fences and gates are found to be both detrimental and beneficial to wild horses. It appears that the authors are indicating that there is no net negative or positive impact.

Response: Providing adequate water is critical for the wild horse population. However, development of a water source can concentrate domestic livestock at or near the sources. Concentrated domestic livestock use can be detrimental to the habitat. Also, water sources like pipelines can expand livestock distribution into areas that were predominantly used by wild horses because wild horses can travel further to and from water. Management fences within HMAs have been installed for domestic livestock management not wild horse management and are not desirable. Gates along fence lines within HMAs are beneficial if opened timely after the authorized grazing season for livestock. Habitat or riparian exclosure fences are helpful if they protect those areas from wild horse use and help meet land use objectives. Boundary fences are beneficial for wild horses because they can keep the wild horses within the designated HMAs.

- Drought considerations

Comment: The BLM has forced livestock producers to remove livestock from grazing allotments during drought years which is contradictory to the Wild and Free-Roaming Horse and Burro Act.

Response: Under 43 CFR 4710.5, HMAs may be closed either temporarily or permanently to domestic livestock grazing if necessary to allocate all forage to wild horse to provide for their health. During drought years, a meaningful interaction between the livestock producers and the BLM has taken place. Through cooperation and coordination, livestock reductions have been voluntary, except once, for rangeland health. If monitoring has indicated that the wild horses are responsible for deterioration of the vegetative resource, excess wild horses have been gathered from HMA's as per the Act.

- Monitoring

Comment: Alternative B proposed to monitor and manage conflicting uses in a manner that fully protects the wild horses. Why did the authors conclusion disregard the intent of Alternative B in the impact analysis?

Response: Under Alternative B, activity planning, monitoring, and evaluation was depended on heavily to determine levels and types of compatible uses, and to determine the need for any protective or limited use designations. It stresses mitigation to correct impacts to the wild horses as opposed to restricted use to limit or prevent impacts. The emphasis on activity planning, evaluation, monitoring and nonspecific mitigation made it very difficult to assess the true impacts of Alternative B. Activities which although not immediately causing substantial harm, would have a cumulative detrimental effect on the health and welfare of the wild horses.

- Restrictions in herd areas

Comment: Severe restrictions on recreational uses are contrary to the law and are not supported by data.

Response: Wild and free-roaming horses have been declared protected by Congress and under the administration of the BLM. Consistent with sound management practices, the BLM needs to provide for the preservation of healthy herds and maintain a viable balance between the numbers of animals protected and suitable habitat. Components of monitoring of the habitat have indicated detrimental effects on the population within the HMAs in recent years. (See Appendix MON-1). Cumulative impacts from multiple uses of the same habitat area have been observed and documented. Examples of impacts include: population mortality, habitat loss, reduced free-roaming ability, herd concentration, harassment, and reduced living space.

[redacted]

- Elimination of herd management areas

Comment: Alternative C proposes to eliminate wild horses in areas where they existed in 1971. This violates the law. There is nothing in the law that allows BLM to eliminate acres or take populations down to zero in areas identified as 1971 habitat areas.

Response: The proposed action in Alternative C does not violate the Law. The Wild and Free-Roaming Horse and Burro Act mandates that the BLM consider management of wild horses in identified herd areas. In the LUP process, the removal of wild horses may be appropriate if wild horse management is found to be incompatible with other planned uses of the herd areas. Attention must be given to develop management criteria that address the adequacy of existing resource allocation, compatibility of the horses with other resource uses and the reliability of existing data on animals and the habitat. However, herd areas would retain their status, this assures that a record of potential wild horse distribution is maintained, and allows for future reestablishment of herds should the resource conflicts be eliminated.

- Removal determination

Comment: The law requires managing wild horses for a thriving natural ecological balance. Unless the wild horses are shown to be contributing significantly to over utilization, there is no overpopulation regardless of the number of animals. The law limits BLM's management authority to removing only the number needed to restore the thriving natural ecological balance.

Response: The purpose of monitoring wild horses and their habitat is to collect and analyze the data necessary to evaluate progress toward meeting objectives in an approved land use plan and/or activity plans. Only when the analysis concludes that the objectives have not been or can not be achieved are adjustments in the level of use by wild horses permitted. Adjustments or removal of excess wild horses are to restore the rangelands to a thriving natural ecological balance and prevent a deterioration of the habitat. Proper range management dictates removal of wild horses before the herd size causes damage to the rangelands. Thus, the optimum number of horses is somewhere below the number that would cause damage. The appropriate management level (AML) is the optimum number of wild horses, see Table WHRS-2E.

- Thriving ecological balance

Comment: How does BLM measure the "thriving natural ecological balance" within wild horse herd management areas?

Response: A thriving natural ecological balance is the condition of the public rangelands that exist when resource objectives related to wild horses in an approved land use and/or activity plan has been achieved. An ecological balance requires that wild horses and other associated animals be in good health and reproducing at a rate that sustains the population, the key vegetative species are able to maintain their vigor, composition, production, and reproduction, the soil resources are being protected, maintained or improved, and a sufficient amount of good quality water is available to the animals. Determining if ecological balance is being maintained over the long-term is best judged through monitoring of the ecological condition of the herds habitat. (See Appendix MON-1).

LIVESTOCK GRAZING MANAGEMENT

- Livestock objective

Comment: The livestock grazing management objective is written in a manner that gives all other objectives priority over livestock grazing. The Draft EIS treats grazing management as the lowest priority use in order to promote other uses of the land.

Response: The livestock grazing management objective does not attempt to prioritize objectives. It simply emphasizes that livestock grazing would be conducted to preserve the land and its resources from injury due to overgrazing. The livestock grazing objective has been revised to better reflect management intent.

- Time frame for grazing systems

Comment: The management action in the preferred alternative requires approved grazing systems within two years to improve especially riparian ecosystems. This time frame is not realistic.

Response: As a result of comments concerning the timeframes to implement changes in livestock management to meet riparian objectives, BLM developed a new preferred alternative. Alternative E proposes to adjust livestock grazing practices to meet the multiple use objectives and "Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management." All of the livestock grazing allotments are proposed to be prioritized and livestock grazing adjustments made if existing grazing practices or levels of grazing use are significant factors in failing to achieve the standards and conform with the guidelines or meet other multiple use objectives.

Adjustments to meet the standards would be completed on Improve category-high priority allotments within five years, on Improve category-medium priority allotment within eight years and within ten years on all other allotments. In the absence of an approved and implemented grazing system designed to meet multiple use objectives and the standards for rangeland health, livestock grazing would be authorized under the following stipulations:

Riparian areas not in acceptable condition and/or not properly functioning would retain a 6-inch minimum stubble height on riparian herbaceous stabilizing hydrophilic plants at the end of the grazing period.

The instances of use on woody vegetation (willow, alder, rose, cherry, dogwood, etc.) would not exceed 25% on those plants generally less than three feet in height in any given year.

Utilization of upland vegetation would not exceed 50 percent use as determined by the key forage utilization class.

Grazing at lower elevations (3500 feet) would be adjusted so that grazing would not occur during the critical growing season more often than one in three years.

- Alternative B impacts

Comment: Alternative B proposes development of grazing plans or systems to meet resource objectives. How could BLM determine alternative B would not meet these objectives throughout the resource area?

Response: In many instances it is possible to implement a grazing system and construct range developments necessary to affect a change where livestock grazing is no longer causing an adverse impact. However, some areas (such as wilderness study area, wild horse herd management areas and other areas) may restrict rangeland developments. In those allotments where these kinds of restrictions apply a grazing system in and by itself was determined not to affect a significant change. These areas were assessed by BLM under alternative B as not meeting resource management objectives.

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- Forage allocations

Comment: Alternative C proposes to allocate forage at or in excess of current preference for many allotments despite unsatisfactory conditions and resource conflicts.

Response: Alternative C does not propose allocations above active preference but does propose to allocate forage at active preference where grazing exists or could exist compatible with other resources.

- Idaho Department of Fish and Game consultation

Comment: Has BLM consulted with Idaho Department of Fish and Game during the planning process and has competitive forage been allocated to big game?

Response: Idaho Department of Fish and Game has been consulted many times during the RMP/EIS planning process. A proposed allocation of forage to big game is now shown in the livestock tables.

- Allotment Management Summaries

Comment: We suggest the final plan contain a separate write-up for each allotment summarizing ecological conditions, riparian resources, multiple use conflicts, quantifiable resource objectives, present and proposed forage allocations (including a competitive forage allocation for wild horses and big game), present and proposed seasons of use, allowable range improvements, the constraints to be placed on livestock grazing, an assigned priority for completion or modification of an AMP, and a monitoring plan.

Response: The information requested for each allotment is generally shown in the Allotment Management Summaries or the different livestock tables. Some of the information requested would be more appropriate at the activity planning level rather than at the RMP/EIS level.

- Prescribed burn

Comment: The Complete Range Improvement Projects table did not adequately reflect a prescribed burn and pasture fence within allotment 0570.

Response: The range improvement projects list for allotment 0570 has been updated. The prescribed burn was conducted on land administered by Idaho Department of Lands. The acreage listed under prescribed burns accounted for public land acreages only.

- Utilization limit

Comment: BLM's utilization standard of 50 percent grazing utilization is too high and should be reduced to 30 percent.

Response: The RMP/EIS incorporates Idaho Standards for Rangeland Health. Standards such that the amount of distribution of ground cover, including litter, are appropriate for site stability and plant vigor is adequate to enable reproduction and recruitment of plants, will provide for healthy rangelands. Different utilization standards may be appropriate dependent upon many factors to meet multiple use objectives and the Standards for Rangeland Health. Some general utilization standards have been discussed under Alternative E. Further adjustments in utilization standards would occur at the activity planning level. Several studies have indicated that by limiting grazing use levels to 50 percent and rotating livestock to different pastures so that grazing does not occur at the same time every year substantially improved to the rangelands. Use levels of 30 percent may be justifiable on certain occasions. Alternative E generally proposes using a 50 percent utilization level but different use levels may also be used necessary to meet Idaho Standards for Healthy Rangelands and other multiple use objectives.

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- Grazing reduction

Comment: The last Owyhee Grazing EIS proposed a 7% livestock grazing increase in allotment 0570. Now a 50 percent reduction is being proposed. Why is this?

Response: Alternative C proposes to change the livestock grazing season of use in Jump Creek Allotment (0570) from 6/1-9/30 to 5/16-7/15. The proposed season-of-use was incorrectly listed as 5/1-7/15. This has been corrected. The same number of livestock would graze upon the allotment only the season of use would be reduced by 50 percent. Therefore, active grazing preference would be reduced 50 percent. The proposed change is to improve riparian associated resources.

Comment: What is the rationale for reducing livestock grazing by 50 percent in allotment 0651?

Response: Alternative C proposes to reduce active grazing preference in East Reynolds Allotment (0651) by 50 percent to improve upland vegetation and reduce conflicts with wild horses. The monitoring data present on this allotment has not been formally analyzed. Until BLM completes an assessment of the monitoring data, this figure is an estimate only.

- Grazing preference

Comment: Alternative C and D disregard grazing preference rights as specified in the Taylor Grazing Act.

Response: The different alternatives do not disregard grazing preference. Alternatives C and D as well as the other alternatives propose a certain level of livestock grazing use. The authorized officer has the authority to limit or exclude grazing to the extent necessary to achieve objectives. The different alternatives take different approaches to reach these objectives.

- Winter and spring use

Comment: The proposal calls for a change of season to winter use from spring use on allotments, or allotment areas under 3500 feet in elevation. The allotments with these areas are not identified on Table LVST-C with no change to winter use shown. For certain allotments the grazing seasons are shortened and the numbers increased. This will result in increased grazing during the most critical period and over-grazing. Some allotments allow for continued spring use only, with no allowance for plant regrowth or a periodic cycle of rest. These allotments will continue to be over-grazed and ecological conditions will decline further.

Response: Table LVST C identifies numerous allotments with acreage under 3500' elevation proposed for winter grazing. Also, livestock numbers are not proposed to be increased on allotments proposed to have the grazing season reduced in order tp improve riparian habitat. Those allotments in which spring grazing is proposed must meet the Standards for Rangeland Health. This could be accomplished through reduced grazing levels, a change in the season of use or rotational grazing system. Monitoring studies or rangeland health assessments that show rangeland health or multiple use objectives are not being met would result in adjusting livestock grazing practices necessary to meet the objectives.

- Water developments

Comment: "Water rams" should be considered as a management tool to improve riparian resources.

Response: Spring developments and "water rams" can be used to relieve grazing pressure on riparian areas. These types of range developments are consistent with the intent of the different alternatives falling under the broad category of pipelines. They may be a tool which can be used to improve riparian areas.

- Grazing adjustments

Comment: LVST 1, Action 2-While comparing the allotment summaries and Table LVST-C, we discovered some allotments have a shortened season due to the proposed implementation of hot season grazing restrictions, however, the level of grazing remains the same as in LVST-A. This seems to indicate a more concentrated use equally detrimental to the resource as hot season grazing. The rationale for this requires an

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explanation. During the comparison of the Allotment Summaries, Table LVST-A and LVST-C it was difficult to get the sense of a reduction in the level of livestock grazing when the season of use changes, but the level of grazing does not. This requires an explanation.

Response: Alternative C proposes to shorten the season-of-use and reduce the current level of use to improve riparian resources. Some allotments may experience a reduced season-of-use with an increase in livestock numbers which would retain the current active preference but this is generally not being proposed. This could be done on those allotments where the Standards of Rangeland Health and other resource objectives would also be met.

- Custodial allotments

Comment: The status of custodial allotments should be reviewed. Granting permittees exclusive use is hard to justify.

Response: All custodial allotments are Fenced Federal Range (FFR) allotments. FFR allotments do not grant livestock grazing permittees exclusive use of the public lands. Small acreages of public lands fenced in with state and/or private land and thus classed as an FFR for livestock grazing management purposes, remain public land accessible to the public, and applicable laws and regulations continue to apply to these lands.

- Grazing preference

Comment: The land use plan for the public lands cannot be complete without a section which specifically addresses livestock grazing management for the express purpose of providing for adjudicated grazing rights.

Response: Grazing privileges as expressed by current active preference are detailed on an individual allotment basis in Table LVST-1. The impact of each alternative on grazing preference is detailed in Tables LVST-A, LVST-B, LVST-C, LVST-D and LVST-E. Livestock permit holders have the first priority to the permit renewal process. However, in new permits, the authorized officer has the authority to specify terms and conditions including but not limited to the number of livestock and seasons-of-use necessary to facilitate achieving the objectives of the land use plans. These actions may impact grazing preference. The Federal Land Policy and Management Act (FLPMA) 1976 instructs the BLM to manage the public lands under the principles of multiple use and sustained yield. The public lands must be managed for economic, recreational and scientific purposes without inflicting permanent damage. Congress has granted the Secretary broad discretionary authority to balance the interests of those who wish to use public lands against the need to protect it from injury. The authorized officer must now limit or exclude livestock grazing use necessary to achieve land use plan decisions or objectives.

- Meeting objectives

Comment: Why would alternative B not meet the livestock objective and alternative C meet this objective?

Response: Alternative C was projected to meet LVST 1 objective and alternative B was not projected to met LVST-1 objective primarily because of differences in the approach used to meet riparian associated objectives. Range improvements necessary to implement grazing systems would not be compatible due to wilderness study area, other resource and economic constraints.

- Standards and guidelines

Comment: By August 12, 1997, new standards and guidelines for grazing management are expected to be in place on BLM lands in Idaho. Allotments must be evaluated to determine whether the standards are being met and the Owyhee RMP should contain plans for meeting the standards.

Response: The Owyhee RMP contains plans for meeting Idaho Standards for Rangeland Health. The schedule is to assess the Standards and take appropriate action on all of the allotments or acres within ten years.

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- Grazing on relic rangeland

Comment: Grazing activities or project development that encourages livestock grazing within "relic" stands of undisturbed vegetation must not be allowed.

Response: Encouraging livestock to graze on essentially relic rangeland, through the introduction of rangeland developments would be carefully considered on a case-by-case basis.

- Soda Creek allotment

Comment: A range consultant read the nested frequency trend plot located within the Soda Creek Allotment. It shows that trend has improved. Also, completed management fences have improved utilization patterns and levels.

Response: BLM plans to complete nested frequency trend monitoring to assess livestock's impact on achieving the vegetation management objective. Monitoring has not yet been conducted on the Soda Creek Allotment (0652). It may be true that newly completed management fences and changes in livestock grazing systems have resulted in an upward trend in the vegetation communities.

- Ecological condition

Comment: The DORMP purports the "(current)" ecological condition, when in fact, after reviewing the underlying data, it relies upon information collected in 1977/1978. Therefore, the DORMP erroneously reports what is the current ecological condition. As a result, no recent determination has been made by BLM except to the extent one can infer from the trend data the changes in frequency of specific plant species within the allotment over time.

Response: BLM has not resurveyed the vegetation or conducted a follow up Ecological Status Inventory. This would be the best method of determining current ecological status. Data obtained from a new survey compared to that of the older survey would best reflect trends in ecological status. However, for the Draft RMP, the baseline data published in the 1981 Owyhee Grazing EIS was updated to an estimated current status based on monitoring data and professional judgement and is therefore correctly identified in Table Vege-2 as Current Estimated Ecological Condition. Nested frequency trend data is used to assess if plant species are becoming more abundant or if they are being eliminated from the plant community. If nested frequency monitoring fails to reveal significant changes in the plant communities then it stands to reason resurveys would show similar results. The trend in upland vegetation on those allotments in which trend was analyzed shows that the trend is non apparent to slightly upward. The long term trend monitoring figures are consistent with the ecological status figures which also reflect a slight upward trend.

- Standards and Guidelines

Comment: The Standards and Guidelines section indicates that alternative C was evaluated against the standards and guidelines and it was found to be in conformance. Is this true of other alternatives?

Response: Regardless of the selected alternative, conformance with, "Idaho Standards for Rangeland Health and Guidelines for Livestock Management," would be necessary.

- No grazing after July 15

Comment: Restricting livestock grazing so that may affect other lands such as State of Idaho administered lands and private lands.

Response: The livestock operators that are permitted to graze on public lands, land owners within allotments as well as state agencies responsible for managing lands within the affected allotments would enter a process of consultation, cooperation and coordination prior to the issuance of proposed decisions. The action to remove livestock before the onset of hot summer weather would be to improve riparian resources on public lands administered by BLM. If appropriate alternatives could not be agreed upon or implemented then fencing to keep livestock on State or private lands may be necessary.

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- Fencing riparian areas

Comment: The riparian areas reported to need improvement includes 9,700 acres. Why not fence this area and exclude livestock grazing and continue grazing the uplands?

Response: Although the total acreage is small, it is in small patches or in narrow bands along streams scattered throughout the resource area. There is no feasible or economic way to exclude a large majority of the riparian habitat needing improvement from livestock grazing through fencing. Although the overall acreage is small it would require in excess of 1000 miles of fence at a cost of over 3.5 million dollars. This does not include costs associated with planning, survey and design, contract administration, required resource inventories or the cost of maintenance to name just a few of the other costs associated with fencing. In some areas where it is determined to be feasible, compatible with other resources and economical to do so, additional areas are proposed under alternative E to be excluded from livestock grazing with the use of fencing.

- Preference data

Comment: The current active and suspended preference for the Garat Allotment should be:

Total Preference	33,646
Active Preference	22,450
Suspended Nonuse	10,896

Response: This revision has been made.

- M I C categories

Comment: What does allotment category I, M and C mean?

Response: The allotment categorization process assigned all allotments into one of three categories: improve (I) maintain (M) or custodial (C). The allotments were placed into these different categories based upon numerous criteria including: the current ecological status, the potential of the forage production, multiple resource issues or concerns, opportunities of positive economic returns, present livestock management and other significant resource concerns. On those allotments in which management could be improved the allotments were categorized as improve (I). On those allotments where management is believed to be satisfactory, the allotments were categorized as maintain (M). And, on those allotments in which small acreages of public land are fenced in with mostly private lands, the allotments were categorized as custodial (C).

- Cliffs Allotment

Comment: The grazing system for the Cliffs Allotment is not clear.

Response: The Cliffs Allotment grazing system is classified as two pastures being deferred on a rotated basis while a third pasture is grazed during the early spring every year.

Comment: Alternative C proposes a rest rotation system for the Cliffs Allotment. This is not possible.

Response: Alternative C proposes rest rotation for the Cliffs Allotment using the existing two pastures which are now being deferred rotated. The third pasture would continue to be grazed in the early spring.

- Objectives in Allotment Summaries

Comment: The objective states the resource concerns listed in appendix LVST 1 will be eliminated within 20 years. The problem is the BLM lists only a subset of all the issues that affect the environment. All 38 objectives of the ORMP should be applied to every allotment and every acre of the resource area.

Response: All objectives of the final land use plan will pertain to all the public lands in the Owyhee Resource Area administered by the BLM. By not listing every objective in the Allotment Summaries this does not release BLM from their managerial responsibilities.

[redacted]

- Objective rationale

Comment: The FLPMA should also have been cited as an important rationale in the objective. FLPMA drives the concept of multiple-use and subsequently will drive many of the decisions affecting the allotments. If we were only working from the Taylor Grazing Act, many actions and objectives in the livestock section would be different or nonexistent.

Response: FLPMA has been added to the rationale section for the livestock objective.

- Stocking rates

Comment: The BLM also fails to discuss how they determined stocking rate for the alternatives. It is unclear whether the BLM is taking a realistic approach to stocking by including limiting factors such as slope of terrain, distance from water, and available forage based upon vegetation type and range condition. These factors are crucial in setting stocking and can not be ignored. Once again, the public needs some discourse on this topic to better understand the proposed stocking levels. Holecheck (1988) reviews an approach which includes those considerations.

Response: Stocking rates were initially determined by forage production surveys. Stocking rates have since been adjusted based upon monitoring in the short term consisting of actual use, utilization and climate. If an unacceptable level or pattern of utilization exists stocking rates are adjusted downward or rangeland developments are constructed or implemented to correct the problem. Also, if utilization rates are below stated goals and BLM determines an increase in the stocking level will allow progress toward LUP goals and objectives then stocking rates can be adjusted upward. This method of determining stocking rates has generally been the standard for setting stocking rates based upon upland forage. In those allotments where riparian resources area a major issue stocking rates may be adjusted based on key management areas or the riparian vegetation. The first approach based upon upland forage takes into account things like slope, rocky terrain, limited water in setting stocking rates based upon "usability" of the rangeland. The key management approach does not because usability of the uplands is not a factor.

- Garat Allotment in Alternative E

Comment: Table LVST-C of the DRMP proposes to change the grazing system in the Garat Allotment to rest rotation system from March 16 through September 30, and proposes to reduce the 5- and 20-year active preference to 15,568 AUMs. During our November 1, 1996 meeting with the BLM regarding the DRMP BLM reported that the terms of the 1989 agreement were to be carried forward into the Final RMP. The selected alternative under the Final RMP must reflect a 4-pasture rest rotation, 2-pasture deferred rotation grazing system with a March 15- October 15 season-of-use and an active preference of 22,750 AUMs as established in the 1989 agreement.

Response: The grazing system for the Garat Allotment (0584) for preferred Alternative E reflects the terms of the 1989 agreement.

- Garat Allotment in Alternative A

Comment: Tables LVST-1 and LVST-A of the DRMP incorrectly list the current grazing system in the Garat Allotment as being a 2-pasture rest rotation, 4-pasture deferred rotation system. These tables also incorrectly list the current season-of-use as March 16-November 11. In fact, the current livestock management in the Garat Allotment established through the 1989 agreement is a 4-pasture rest rotation, 2-pasture deferred rotation grazing system with a March 15 - October 15 season-of-use.

Response: The grazing system for the Garat Allotment (0584) has been adjusted for Alternative A.

- Battleground-Boni Allotment

Comment: Under Alternative A, DORMP errs in reporting the season of use for the Battleground-Boni Allotment as June 1 to October 31 at when the season-of-use should be reported as at least April 15 to October 15. Table LVST-A (Volume 3 of 3, pg. T-83)

Response: The grazing system for the Battleground-Boni Allotment (0548) has been adjusted for Alternative A.

[redacted]

LAND

- RS 2477 issue

Comment: The main focus of these comments is the RS 2477 issue. Some of the concerns were: 1) closure of roads seen as potential RS 2477 roads; 2) closure of trails being in conflict with access rights of RS 2477; 3) closing these roads/trails is contrary (or against the law) to RS 2477 and FLPMA; 4) valid RS 2477 roads are going to be closed; 5) RS 2477 needs to be addressed specifically in the RMP; 6) RS 2477 filings in the County courthouse; 7) how can planning take place when RS2477 is still undecided; 8) Secretary Babbitt is disregarding the RS 2477 law.

Response: Revised Statute (RS) 2477 says in its entirety: The right-of-way for the construction of highways over public lands, not reserved for public purposes, is hereby granted.

The Federal Land Policy Management Act of October 21, 1976, at Section 509(a) protects any right-of-way or right-of-use heretofore, issued, granted, or permitted.

Although the language of the Statute was very simple, the intent of the Congress of 1866 was unclear, as were the meanings of the terms "highway" or "construction." It is doubtful, however, that Congress intended for every road, two-track and trail to be considered a "highway."

Because of the controversy of RS 2477 claims in the west, the 1993 Appropriations Act for the Department of Interior (DOI) and related agencies passed a moratorium on any further processing of claims of RS 2477 highways by Federal land management agencies until Congress could take a look at the issues and controversies. To this end, Congress directed the DOI to prepare a report on the many aspects of RS 2477. At the same time, Congress also requested the Congressional Research Service (CRS) to prepare a report on RS 2477. The findings of the both the DOI report and the CRS report were compiled into a draft report to Congress, "R.S. 2477 - The History and Management of R.S. 2477 Rights-of-Way Claims on Federal and other Lands."

The CRS report found that the understanding of the Congress of 1866, in the context of ground transportation, took the position that a highway was a significant type of road; one that was open for public passage, received a significant amount of public use, had some degree of construction or improvement, and that connected cities, towns, or other significant places, rather than simply two places......

As of this point in time, the BLM is under direction to send any new RS 2477 claims to our Washington Office with a recommendation as to whether or not it meets 2477 criteria.

RS 2477 assertions are assertions the BLM has acknowledged. There have been no administrative actions accepting certain roads as RS 2477. Most of the assertions for RS 2777 roads in the Owyhee Resource area have been made by the County and are used as public thoroughfares.

If a road meets the RS 2477 criteria, the right-of-way already exists by the power of the Congressional grant. It is the BLM policy to issue a letter recognizing the claim and treat the highway as a valid use of public land. If the evidence does not support acceptance, the BLM notifies the assertor by letter. This is only an administrative action and BLM rejection of an RS 2477 assertion can only be solved in state or federal court. Currently, many of the existing roads on public lands are BLM administrative roads and roads/trails used on a casual use basis by other public, i.e. sportsmen, etc., and either do not meet the RS 2477 criteria, or did not exist prior to the passage of FLPMA.

As stated above, FLPMA, which was passed over 22 years ago, repealed RS 2477. Blanket comments on the RS 2477 issue appear to be claiming every recreational two-track road and trail as valid under RS 2477 existing rights. A significant number of these roads and trails did not exist upon the passage of FLPMA, plus, RS 2477 allowed for the construction of highways across the public lands. Recreational roads and trails do not fit the definition of highways in any dictionary, not do they fit the intent of the 1866 Congress as found by the CRS report cited above.

This land use planning effort is not specifically limited to roads. It deals with many program issues. RS 2477 is very controversial, however, it is only one part of the land management issue, and not an issue that will be resolved by the land management agency.

[redacted]

Right-of-way assertions filed with Owyhee County under RS 2477 and RS 2476 are not valid with the BLM since the county does not have jurisdiction over public lands and for an assertion on public lands to be considered a valid assertion it must be filed with the BLM. The Draft RMP does not acknowledge these filings, discuss the property issue related to these filings, or analyze their impacts because of their lack of validity. RS 2477 is a very controversial issue that will ultimately have to be settled by a state or federal court, or by congressional legislation.

There appears to be a misunderstanding that Secretary Babbitt has precluded analysis of rights-of-way under RS 2477. Land management agencies are not simply ignoring these laws. The 1993 DOI Appropriations Act put a moratorium on the BLM on any further processing of claims filed with the BLM until this issue could be further researched. BLM's current guidance is to forward any RS 2477 claims to the DOI Secretary's office with a recommendation as to the validity of the claim. Action on a RS 2477 claim will be based upon the evidence presented by the claimant and the BLM's findings.

No roads that have been recognized under an RS 2477 claim or are currently under existing use authorizations are being closed. Roads qualifying under RS 2477 that have not had assertions filed on them will be analyzed at a time when the RS 2477 issue has been resolved and BLM has been given guidance.

RS 2477 is an undecided and controversial issue and will ultimately be settled either in a State or Federal Court, or by Congressional legislation.

- Inaccurate maps

Comment: Maps included in the draft document are inaccurate.

Response: The maps and the table for land available for sale/exchange have been revised for Alternative E. The Table Lands-1 includes all of the lands in the ORA that meet the criteria for sale under the Federal Land Management Policy (FLPMA). Lands available under other methods of disposal are shown on Map Land 3-E. The maps for Alternative E should now be easier to read.

- Public access

Comment: Roadways around private property should be constructed whenever possible, as it may be less costly that purchasing an easement or the property itself.

Response: It is the policy of this resource area, whenever possible, to purchase an easement from the landowner across private property, usually the use of an existing road. The BLM offers the landowner the appraised fair market value for the easement. In some cases, the BLM and a private land owner will issue reciprocal rights-of-way across each others lands. In many cases, the cost of building a road around private property would be prohibitive. Environmenial impacts and habitat fragmentation also need to be considered when constructing roads.

- Land exchange proposal

Comment: The commentor suggested an exchange and requested certain lands adjacent to the Salmon Creek Ranch be taken out of Zone 1 (retention) and placed into Zone 3 (exchange) and made available for exchange. The commentor has requested the public lands fenced in with private lands be exchanged for private lands that were excluded when fencing ranch property many years ago. The request is that the areas of fenced public be exchanged for the areas of unfenced private lands. The commentor also questions why lands to the south were put in an exchange category (Zone 5) and the lands surrounding private property were not made available for exchange.

Response: In the Draft RMP, those lands requested for exchange were identified for retention.
In the Draft RMP there were three disposal zones: Zone 3 - State exchanges; Zone 4 - sales; Zone 5 - general exchanges. These have been revised and there will no longer be a Zone 5. There will be a Zone 3 - exchange; and Zone 4 - sales. Lands have been identified for disposal based upon resource values and land patterns in the area. We have tried to identify areas where there are large amounts of private and State lands for disposal in order to block up land ownership. Those areas that have been identified as having high

[redacted]

resource values and that would be in the best interests of the public to keep, have been identified for retention. The lands requested for exchange are within the Hardtrigger Wild Horse Herd Management Area (HMA), crucial winter range for Mule Deer, as well as potential habitat for special status plant species.

The proposal of exchanging the fenced public lands for the unfenced private lands, rather than moving fences, makes sense from a landowners point of view, however, these fenced/unfenced areas are not aliquot parts, nor are they surveyed government lots, therefore, before an exchange could be completed, a survey would be required which would be much more costly than moving fences.

Therefore, the decision is for this area to remain in a retention category (Zone 1) in the preferred Alternative E.

- Land exchange proposal

Comment: The commentor requested that an exchange of public and private lands be considered and that the public lands placed in the appropriate Zone. The public lands are near their ranch on the Snake River. Legal descriptions of public lands currently under lease with the BLM are listed.

Response: The lands requested are within the Snake River Birds of Prey National Conservation Area (NCA). Lands in the NCA are managed specifically for habitat for raptors and their prey under Public Law 103-64, which was passed by Congress and signed into law on August 4, 1993. Any exchange proposal within the NCA will be considered and analyzed under the NEPA process and decisions will be made using criteria set out in the NCA law.

- Disposal of large tracts of land

Comment: Large tracts of public lands listed on the sale/exchange table are within grazing allotments while some specific small parcels are not. Why are specific large tracts of land being considered for disposal?

Response: Although this RMP identifies some large areas for disposal from public ownership, in trying to meet short-term and long-term public needs, we have basically identified areas where there is already a large amount of public and state lands so there is more of a chance of blocking ownership patterns. Lands identified in land use planning for disposal do not automatically leave public ownership but will be analyzed on a case-by-case basis. Along with the NEPA procedures, there is a public comment process that is used whenever a disposal is being considered, as well as all adjoining land owners and grazing permittees being notified. With the exception of some requests by the State, the majority of the proposed exchanges are for small parcels.

The maps of lands available for disposal have been revised for Alternative E. More lands have been identified for retention than was originally shown on Map Land 3-C or in Table LAND-1, Lands Potentially Suitable for Disposal. Table LAND-1 has been revised to reflect only those lands that meet the FLPMA criteria for sale. Lands that meet other disposal criteria, i.e. exchange or R&PP, are now only shown on Map Land-3E.

There are some isolated parcels in T. 1 N., R. 3 W., and T. 3 S., and R. 4 W., that are identified for sale or exchange. If a specific parcel has not been identified for disposal, it has been identified by resource specialists for retention because of resource values on that specific parcel.

- Payment for access under the Takings law

Comment: The BLM should have to pay for access under the (takings) law.

Response: Access identified on Map Land-4 are usually for existing roads across non-public lands. When the public and/or administrative access is needed, BLM negotiates with the land owner. If an agreement is reached, the BLM is required by law to offer fair market value in money, land or other compensation (worked out between the land owner and BLM) for the access rights. In some cases, the BLM and land owner are able to grant each other reciprocal rights-of-way across each others lands.

[redacted]

- Idaho Department of Lands request

Comment: Comments from the State of Idaho Department of Lands (IDL) requested several areas be made available for exchange between the BLM and IDL: 1) Boulder Creek; 2) Fossil Butte and/or Diamond Basin; 3) Dry Creek; and 4) open Zones for future exchanges

Response: The State of Idaho has identified lands in the area of Big Boulder Creek for acquisition under an exchange with the BLM. Those lands that are within the Boulder Creek ONA/ACEC have been identified for retention and will remain so as a part of the ONA/ACEC. Also those lands within Big Boulder Creek riparian area have been identified for retention because of their resource values. The State had identified lands to the north of Big Boulder Creek as well. Those areas have been classified as Zone 3 lands which are available for exchange.

The State of Idaho has identified lands in the Fossil Butte and/or Diamond Basin for exchange. At the time of a meeting on July 24, 1998, the State requested that designation be changed and those lands offered for exchange. After consultation with resource staff specialists, it has been decided that these lands will remain in public ownership due to the resource values of the areas including Wild Horse Herd Management Area, well as being part of the Owyhee Front Special Recreation Management Area.

The State of Idaho has identified lands in the Dry Creek area for exchange. The lands were currently classified as Zone 1 lands and the State requested they be made available for exchange. After consultation with the resource specialists, the decision has been made to retain these lands in public ownership (Zone 1). This area is a part of the crucial winter habitat for Pronghorn Antelope.

The Idaho Department of Lands has requested that the State of Idaho not be limited to the Zones identified for disposal, that in the future they be allowed the flexibility of acquiring lands in Zones identified for retention (Zone 1).

To allow for blocking ownership patterns, this land use plan has identified public lands for exchange in areas where the State has large blocks of lands. Tens of thousands of acres have been identified for disposal allowing many opportunities for the State to acquire lands in exchanges. Areas that have been identified for retention have been so identified because of the resource values and public benefit in doing so. The Federal Land Management Policy Act (FLPMA) of 1976 charges the BLM with retention of the public lands, unless the public interest is well served by disposal.

- 'In holding' list

Comment: Request a list of "IN HOLDING" properties in the impact area.

Response: BLM does not inventory private lands, therefore, there is no list of "IN HOLDING" properties within the impact area of this Draft RMP. Map Land-1 is a map of all public, private and state land ownership. Surface management maps (a total of 3 for the entire impact area) can be purchased for a larger, easier-to-read version of Map Land-1.

- Request to change parcel to exchange category

Comment: Request that Zone 1 (retention) lands be changed to Zone 3 (exchange) lands for the public lands at NW", section 23, T. 2 S., R. 4 W.

Response: Those lands are currently identified for retention. After consultation with staff resource specialists, the decision has been made for these lands to remain in a retention category (Zone 1) because of the resource values; in particular, these lands are a part of the crucial mule deer winter range habitat. Also, the BLM has been working with the local rancher on cooperative wildlife agreements in the area and to sell this parcel of public lands would, to a certain extent, negate the benefits of such agreements.

- Access to State lands

Comment: There are concerns about the State of Idaho and their licensees and permittees having access to State lands in areas that may be shown as exclude or avoid for use authorizations including rights-of-way, as well route closures for recreation.

[redacted]

Response: The maps for the avoidance/exclusion areas, that have been revised for the preferred Alternative E, show that the only exclusion areas in the north half of the resource area are in two ACEC's. The state has endowment lands on the edges of these ACEC's, and therefore would not be cut off from them as there are existing two-track access roads. The Alternative E maps for the south half of the resource area show the exclusion areas are mainly in ACEC's and WSA's. There is one section of endowment land on the North Fork of the Owyhee River that is totally enclosed in an exclusion area; and four sections in the southwest corner of the State in WSA's. BLM has identified these lands for acquisition into public land ownership, therefore, access may not become a problem in the future, especially as these lands are so isolated. There are sections of endowment lands that are within the right-of-way avoidance areas, however, with proper mitigation, reasonable access can be authorized to these sections. Most of the minerals closures are in areas that are sensitive for resources or habitat, i.e., ACEC's or WSA's. In the preferred Alternative E, travel routes in the 'limited to designated routes' area would be evaluated to determine which routes should have restrictions applied.

The BLM and the State of Idaho have an agreement signed in 1964, that allows each to apply for access for themselves, their licensees and permittees across each other administered lands.

LOCATABLE MINERALS

- Change agents

Comment: The list of Change Agents associated with mineral withdrawal would allow the BLM to prevent mineral exploration and development solely for riparian and wetland management and water quality considerations. Wetlands and water quality are heavy regulated by other federal and state agencies. The US Army Corps of Engineers regulates wetland/riparian and the EPA and State of Idaho regulate water quality. Wetlands and water quality should be deleted from the Change Agents.

Response: The document has been revised to reflect the requested changes.

- BPMs

Comment: The RMP does not identify BMPs for forest and woodland management or energy mineral exploration. The state approved BMPs for these nonpoint source activities are the Idaho Forest Practice Rules, IDHW Rules Governing Solid Waste Management, and the Rules/Regulations/ Minimum Standards for Stream Channel Alterations. Also state laws and regulations governing surface mining (Idaho Surface Mining Act, Idaho Dredge and Placer Mining Act, Ore Processing by Cyanidation) should be referenced.

Response: Any moderate to large mining or mineral extraction operation which takes place on public lands must also be authorized by the State of Idaho. The BLM works in concert with state and other federal agencies to minimize and mitigate damage to the public lands as required by numerous state and federal laws, including use of any applicable BMP's, as determined by site specific analysis.

- Active claims

Comment: There is no data presented to show how the proposed withdrawals will affect the 1465 active claims in the resource area. The public must be given complete and accurate data when considering management options.

Response: As of August 17, 1998, the number of active claims in the resource area was 1160, down from the 1465 used in the DRMP. The locations of mining claims are not mapped except on an individual or company basis and so an accurate count of how many mining claims would be affected by withdrawals is not obtainable. Generally speaking, most of the withdrawals are in areas of low probability for the occurrence of locatable minerals except the Rooster Comb Peak ACEC which has been deleted in the preferred alternative. All claims within a withdrawn area would have validity exams conducted, on an individual basis, to determine whether valid existing rights exist. All valid existing claims within the area would be "grandfathered" .

[redacted]

- Elko RMP

Comment: The entire Elko Resource Area is open to mineral entry except an 11 acre administrative site in the City of Elko. Alternatives A through D which recommend withdrawal from mineral entry for locatable minerals therefore would conflict with the Elko RMP.

Response: The Elko Resource Area is right in the heart of one of the premier disseminated gold mining areas of the world and therefore probably should be open for mineral entry. The Owyhee Resource Area has a few pockets of mineralization rich enough to be mined, but not very many, and none known in the area adjoining the Elko Resource Area. The preferred alternative E has mineral withdrawals on 16% of the resource area, primarily to protect wilderness areas and nationally designated rivers.

FLUID MINERALS

- Oil & Gas Leasing

Comment: The Elko RMP provides for Oil & Gas Leasing with a No Surface Occupancy restriction for areas within one-half mile of the high water line of the South Fork Owyhee River within the designated SRMA. WSAs are closed to Oil & Gas Leasing.

Response: Cross referencing the SRMA designations map (Map RECT-2C) with the WSA maps (Map WNES-1) shows that the SRMA's are almost wholly within the WSA's. The WSA's are closed to Oil & Gas Leasing, as are Elko's.

RECREATION

SNOWMOBILE DESIGNATIONS

- Snowmobile maps

Comment: Snowmobiles should not be included as off highway motor vehicles, but rather as over snow vehicles. There are areas that are appropriately closed in the summer to motorized recreation but can be ridden by snowmobilers in the winter with no impact to the environment. Snowmobile areas should be shown on maps in the RMP.

Response: In Alternative E, separate designations are proposed for off highway motor vehicles and over snow vehicles, and separate maps display the designations. There are 864,654 acres designated "open" for snowmobiles and other over-snow vehicles.

- Clarification of restrictions

Comment: On Page II-115 under Alternative C description of OHMV restriction Limited-Level 4: restricts snowmobiles to designated areas in winter months and only allows OHMV recreation on existing roads and jeep trails. This restriction on snowmobiles is unnecessary. The map fails to identify any trails OHMV recreationists use in these areas. Roads, trails, and snowmobile areas need to be clarified within this restriction by the resource area staff before we can attempt to analyze the impacts to snowmobiling in these areas.

Response: OHMV designations proposed in Alternative C regarding both OHMVs and over snow vehicles were revised in Alternative E. In Alternative E, the geographic extent of designated areas and designated routes has been identified. The actual process of determining the status of individual roads and trails is more specific than the general scope of the RMP, and will be deferred to a subsequent process that will include the involvement of interested individuals and organizations.

[redacted]

- Snowmobiles limited to roads and trails

Comment: Snowmobiling should not be limited "to jeep, motorcycle and ATV trails." Finding a jeep, motorcycle or ATV trail when the ground is covered with snow is impossible. Roads and other trails clearly visible in the summer, spring and fall disappear when covered by snow. Snowmobiling in the Owyhees is not a trail sport. There are no groomed trails, in fact, there are no plans for groomed trails, it is strictly back country riding at its best. The demand on the public lands for recreational use is definitely going to increase.

Response: In Alternative E, the designation you describe is not used for defining over-snow vehicle areas. OSVs will be allowed to operate in large geographic areas. Because the demand on the public lands for winter recreation will increase, some of the most accessible and popular winter use areas may require future planning to accommodate the spectrum of winter recreationists.

- Snowmobiles in wilderness study areas

Comment: Snowmobiling should be allowed in the wilderness study areas. Snowmobile use does not compromise the areas' potential for wilderness designation.

Response: Allowable uses in Wilderness Study Areas (WSAs) are described in BLM Manual 8550, Interim Management Policy For Lands Under Wilderness Review (IMP), and cross country vehicle use is specifically prohibited. The five wilderness study areas not recommended suitable for wilderness designation are designated as Closed-IMP. These areas will be designated for OSV use if released from wilderness consideration.

OHMV DESIGNATIONS

- Limited OHMV use in certain watersheds

Comment: Off highway motor vehicle use should be limited or prohibited in high erosion hazard watersheds, in watersheds where accelerated erosion is occurring, in watersheds that don't meet state and federal water quality standards, and in water quality limited stream segments.

Response: The impacts of individual roads and trails on watersheds and water quality will be evaluated during the route designation process. Roads and trails that are causing resource damage may be closed, rerouted, or reconstructed.

- OHMV open areas

Comment: Limit off-highway motor vehicles to existing roads, with no unrestricted cross country travel.

Response: In Alternative E, the only permitted unrestricted cross country travel for OHMVs will be a 192 acre site at the Hemingway Butte OHV trailhead. In the majority of the resource area OHMV use will be limited to existing roads and trails, with a transition in some areas to designated roads and trails.

- Separate designations

Comment: It is a mistake to lump trail motorcycles, ATVs, 4wds and snowmobiles into the same category with the same restrictions. Each type of machine has different recreational needs. A trail motorcycle needs single track trails, ATVs and 4wds need dual track trails or roads and snowmobiles need large land areas where they can randomly ride.

Response: Guidance for BLM planning decisions related to OHVs stems from federal regulations and policies. Executive Orders 11644 and 11989, and BLM Manual 8342, Designation of Areas and Trails (Off-Road Vehicles) require the Bureau to designate public lands as open, limited, or closed to off-road vehicle use. There is no requirement for separate planning criteria for different types of OHVs. In Alternative E we have developed separate designations for OHMVs and OSVs. When we establish actual route designations, the public will be invited to participate in the determination of appropriate uses for different road and trail segments.

- Mechanized vehicles

Comment: Any regulations that apply to bicycles must also apply to motorbikes. Allowing bicycles but banning motorbikes is discriminatory because it essentially endorses vehicle use for those with strength endurance, and good health while prohibiting vehicle use for those who do not enjoy these qualities.
Response: The proposed OHMV designations apply to both mechanized (bicycles) and motorized (motorbike) vehicles.

- Alternative B open designation

Comment: Did the Alt B proposal as submitted to BLM contain a statement that no lands would have an OPEN designation or was this an interpretation by BLM?
Response: Alternative B, as submitted to the BLM, did not include the use of an "open" designation for OHV management. Alternative B recognized the legitimate use of all existing roads and trails, whether they be historic mining roads that need to be re-opened, livestock trails, wildlife trails or trails developed by OHV use.

- Posted areas

Comment: All use designations contain a statement that uses are as stated "unless otherwise posted". Does "unless otherwise posted" mean there will be areas with less restriction, more restriction, or both?
Response: The notice of "except as otherwise posted" is used to allow for small, localized changes to the otherwise broadly based OHV designations without having to go through formal Federal Register or plan amendment efforts.

- Increased use estimates

Comment: According to the 1987 Owyhee Off-Road Vehicle Management Plan the Owyhee Front contains 500 miles of dry sand washes and interconnecting primitive roads, ways and trails. The closure of 140 miles of trails represents a 28 percent reduction of OHV trail mileage. It appears that the Owyhee Resource Area is reducing the number of OHV trails because of a perception that OHV use will grow by 70 percent over the lifetime of the plan. This is based on information from the 1983 and 1990 Idaho State Comprehensive Outdoor Recreation Plan. The projected increases in recreation activities are subjective, and some projected increases are due to different sampling methods. These differences in estimates are a result of different sampling methods. One can make general conclusions about growth, but one can't assert that motorcycle or ATV use will grow by 70 percent.
Response: Alternative C proposed that single track trails not be authorized in a portion of the Owyhee Front, which would have led to trail closures as you described. Alternative E continues interim use of existing roads and trails in this area, with future planning to determine what road or trail closures are necessary in specific areas.

The State Comprehensive Outdoor Recreation and Tourism Policy Plans (SCORTP) referenced were produced in 1983 and 1990. SCORTP reports prepared by the Idaho Dept of Parks and Recreation since 1990 have not included this type of information, which would provide one useful estimate of OHMV trends. According to Idaho Department of Parks and Recreation registration data, OHV registration increased 76% in the past 9 years, with a 16.4% average increase per year, a greater rate of increase than that estimated in the RMP. For planning purposes, we make estimates of future use based on a variety of sources, using the best information available.

- Trail definition

Comment: How does the Owyhee Resource Area define a motorcycle/ATV trail? How do you distinguish a motorcycle trail from a livestock trail, from a game trail?
Response: BLM Manual 9114 defines motorized bike trails as "specialized trails designed for dirt bike users." Livestock and game trails are not considered motorcycle or ATV trails.

- Existing roads and trails

Comment: Throughout the OHMV designations there are references to "existing" roads, trails, etc. The BLM should define what this means. There is extensive new, and unauthorized, trail development that has occurred throughout the Owyhee Front. The lack of specific definition would seem to take all known trails today and legitimize them as valid routes for the future. This has several serious consequences. First, it rewards those engaging in illegal OHMV use by assigning those newly damaged areas as valid trails. Second, the area is already significantly degraded from a vegetation and soils point of view; so legitimizing these trails is unacceptable. The BLM must define what it means by "existing" trails.

Response: The pioneering of new roads and trails is a concern, and a transportation system limited to existing roads and trails, such as the current designation on the Owyhee Front, has not been able to adequately address the issue in heavily used or sensitive areas. Alternative E proposes to gradually move portions of the resource area to a designated road and trail system. The designation process will enable the staff and the public to evaluate the transportation network and determine which roads and trails are useful components of the network.

- Private land

Comment: The OHMV map for Alternative C shows the Limited L5 designation covering large areas of state and private land, in addition to the public land.

Response: OHMV designations only apply to the public land within the Owyhee Resource Area. Due to the large geographic area being depicted, and the small scale of the maps in the RMP, scattered state and private land parcels are not differentiated.

- Future changes

Comment: The RECT-1 objective indicates the BLM will provide for off highway motorized vehicle use on public lands, while the management actions propose restrictions without provision for reviewing designations and making changes related to increasing or decreasing demands.

Response: The OHMV designations proposed are considered appropriate for managing the current level of OHMV use. The designations proposed are also considered appropriate to deal with projected changes in use levels over the life of the plan. If actual OHMV use patterns change so dramatically from both current levels and projected levels that the management actions no longer seem appropriate, the RMP can be amended and designations changed.

- Fossil Creek area

Comment: Alternative C proposes closing 50 miles of trails in the Fossil Creek area on page IV-C-34. What is the reason for this?

Response: Under Alternative C, mostly sand washes would have been excluded from use as OHV trails because of the Snake River Birds of Prey NCA's concern for ground nesting raptors. In Alternative E, there are no specific trail closure decisions in the Fossil Creek area. The transportation network within the Snake River Birds of Prey NCA will be evaluated by NCA staff and interested participants.

- Single track trails

Comment: I have a concern about the Limited Level 5 designation that allows for motorized travel on existing roads and jeep trails only. What about single track trails? Does this designation mean that all the single track trails throughout the resource area (outside of the Owyhee Front SRMA) would be closed?

Response: The Limited Level 5 designation proposed in Alternative C would close all single track trails in areas covered by that designation. Alternative E does not include the L5 designation.

- Allowable damage levels

Comment: The RMP should establish thresholds or allowable damage levels (trail widths, new trail/road lengths, etc.) that would trigger automatic closure/limitations of areas to OHMV use when the thresholds are reached. Many areas currently open to OHMVs have significant resource damage, and impact criteria could be used to close damaged areas until sufficient revegetation occurs and the threat of additional soil erosion has been eliminated.

Response: Road and trail closures or limitations will not be determined only by trail conditions, but rather by resource concerns. An activity planning process will be used to review the existing transportation network in an area, and to determine what restrictions or closures are required to accomplish resource management objectives for wild horses, wildlife, sensitive plants, etc. When identified problems are only related to trail conditions, trail maintenance, redesign, or relocation may provide a solution other than closure. Maintenance standards and procedures for the designated trail system will also be established to deal with trail conditions such as width, erosional problems, whoop-de-doos, etc., subsequent to completion of the RMP.

- Monitoring

Comment: There is no mechanism to assess damage done by ORV users. ORV users should be subject to limitations of use as are the livestock owners. The lack of a monitoring plan to document the habitat loss that will inevitably occur under all the Alternatives except D is unacceptable.

Response: Monitoring is a component of all of the recreation objectives, and is described in Chapter II. A monitoring plan for OHMV trails in the Owyhee Front SRMA has been in place since 1994. A total of 34 trail sites have been established, according to soil type and distance from the developed trailheads at Hemingway Butte, Rabbit Creek and Fossil Creek. Photos and measurements were taken in 1994 and 1997 to monitor changes in trail conditions. In addition, the entire Owyhee Front SRMA was inventoried for existing trails in 1987-90, and reinventoried in 1998.

- Use in Wild Horse Herd Management Areas

Comment: The BLM constructed OHV trailheads at Rabbit Creek and Hemingway Butte, using IDPR grant funds from the OHV registration sticker program. Both of these trailheads are located within Wild Horse Herd Management Areas (HMAs). Why has the BLM now decided to limit OHMV use in these areas?

Response: Under the preferred alternative, specific route designations within the herd management areas will be established. There may be road and trail closures within herd management areas, and there may be seasonal restrictions in portions of the HMAs. Due to the large network of roads and trails accessible from the Owyhee Front trailheads, it is not anticipated that road and trail closures or seasonal restrictions within HMAs will significantly limit ORV opportunities.

- Competitive OHMV events

Comment: The agency has issued authorization to SIDRA to conduct competitive OHMV events within specified areas. The Draft RMP/DEIS does not discuss the potential impacts that the presented alternatives may have upon this authorized use.

Response: OHMV events are one of many types of competitive recreation events that may be permitted on public land. Applications for proposed events are evaluated on a case by case basis. When approved by the land manager, these events are authorized by the issuance of special recreation use permits. BLM has considerable discretion regarding the approval of special recreation use permits on public land.

- Posted areas

Comment: The BLM must ensure all the OHMV level designations include the option to limit OHMV use by posting. This provides flexibility where needed and yet does not have to be used except where necessary. The BLM has everything to gain and nothing to lose by adding this management tool. Level 4 should include the "except as otherwise posted" statement.

Response: The preferred alternative includes the suggested phrase for the open and limited designations.

- Congressional review

Comment: In its present form, the Draft RMP/DEIS appears to invoke congressional review requirements. Prior to implementation, agency regulations require a report be submitted to congress when the decision at issue "totally eliminates one or more principle or major uses for 2 or more years with respect to a tract of 100,000 acres or more..." 43 C.F.R. § 1610.6 (1996). If the preferred alternative is adopted, OHMV use will be closed on 244,367 acres. Draft RMP/DEIS, at II-117. As explained above, any closure to OHMV use is not mandated by the Wilderness IMP, but would necessarily be included in the present planning process. Should Alternative C be selected, or any alternative seeking to eliminate OHMV use from a tract of 100,000 acres or more, the agency should prepare the report mandated by the above-cited regulation.

Response: The areas proposed for closure to OHMV use have remained roadless areas due to their remoteness and extremely rugged topography. Cross-country travel by OHMVs would be prohibited, but OHMV use on designated roads within some closed areas would be allowed. In the preferred Alternative E, the largest of the closed areas would be approximately 57,000 acres.

- Increasing primitive area

Comment: Only 13% of the Owyhee Resource Area-is listed as "primitive" by the recreational opportunity spectrum. This is inaccurate. The percentage of lands listed as primitive can and should be increased to provide more nonmotorized recreation opportunities.

Response: According to the inventory conducted for the RMP, only 13% of the resource area retains primitive recreation settings as defined by the Recreation Opportunity Setting (ROS). Increasing the amount of primitive settings would require the closure and removal of long established roads.

- Hunter access

Comment: In the south half of the resource area, two access roads for hunters need to be open during big game and upland game bird hunting seasons.

Response: In the preferred alternative, both of these access roads are in an area classified as designated roads and trails. Individuals and organizations will be invited to participate in the process of designating specific roads that will remain open in this area.

- OHMV use in wilderness study areas

Comment: Travel restricted to existing roads and trails should be allowed to continue in WSA's. Motorized travel on existing routes does not preclude an area from becoming wilderness.

Response: BLM Interim Management Policy For Lands Under Wilderness Review establishes the land use planning process as the appropriate venue for establishing OHMV classifications within WSAs. The classifications can be no less restrictive than allowing use on existing roads and trails, but may be more restrictive. Under the preferred alternative, the majority of WSA land will transition from motorized use on existing roads and trails to motorized use on designated roads and trails. Implementing a designated system will provide a mechanism for evaluating the road network in conjunction with other resource values, and will result in more clearly defined routes authorized for motorized travel.

- Bighorn sheep impacts

Comment: The populations of the bighorn sheep are increasing in the Canyonlands, and there is motorized use occurring there, so how could the staff conclude that incidental motorized vehicle use affects the bighorn sheep?

Response: According to the latest information provided by IDF&G, while this population of bighorn sheep has, for the most part, steadily increased over the last several decades, it is currently lower than it has been in the recent past. This recent decline is attributed to two primary factors including removal of sheep for transplants into other areas and increased mortality and reduced productivity resulting from a combination of drought and winter weather. Although not currently identified as a problem for the Owyhee River bighorn sheep population, road access into bighorn habitat could result in adverse impacts to bighorn sheep and other wildlife as use levels continue to increase. These impacts could include increased mortality due to poaching; permanent or seasonal avoidance of otherwise suitable habitat; depletion of energy reserves; and increased stress during critical periods that can contribute to a variety of physiological problems. Studies of the impacts of roads and associated human activities on bighorn sheep have revealed a wide range of responses ranging from little or no impact to total displacement of bighorn sheep from preferred habitat. Sheep generally appear to adapt well to heavily used roads, such as highways, that run through or adjacent to occupied habitat, but have declined or been displaced by increasing levels of human activity that may occur in association with roads leading into sheep habitat. It has been observed that as human activity increases in bighorn sheep habitat, sheep numbers will decline(Dunaway 1970 and Light 1971).

- Wilderness study area closures

Comment: Federal statutes do not require the closing of any existing roads and trails in Wilderness Study Areas. They should remain available to motorized use until Congress acts on this issue.

Response: Various public laws and executive orders provide specific authority to the BLM to make land use planning decisions, including OHMV designations. The Interim Management Policy and Guidelines for Lands Under Wilderness Review specifies that vehicle designations in WSAs are to be handled through the land-use planning process.

- Travel Management Plan and map

Comment: The final RMP needs to include a detailed Travel Management Plan and map which clearly identifies which areas are open/closed to OHMV use. Seasonal closures should also be clearly defined.

Response: Maps in the RMP identify the areas proposed for different classifications of OHMV use, as well as areas proposed for seasonal restrictions. Larger scale travel maps that include these classifications and restrictions will be developed as designation processes are completed.

- Wild and scenic river study requirement

Comment: Why does the preferred alternative include recommendations on the WSR eligibility designation in a land use plan when there is no policy, regulation or federal statute requiring it? Why can't WSR eligibility be subjected to a separate NEPA process?

Response: The Wild and Scenic Rivers Act requires agencies to evaluate rivers for their potential as national wild, scenic, and recreation river areas. The BLM chose to include the WSR component as part of the scope of the current planning effort, rather than as a separate NEPA process.

- Interim protection for eligible river segments

Comment: Why would the BLM propose interim protection for eligible NWSR segments until Congress acts on them when Congress has not expressed an interest in these segments by authorizing a study of eligibility?

Response: Congressionally authorized studies are one of several mechanisms that can initiate river evaluations. Federal agencies also assess eligibility and suitability for rivers within agency planning processes. Protective management of federal lands in the river area is initiated as soon as eligibility is determined. Eligible river segments found non-suitable for designation in the RMP are released from protective management by the RMP decision.

- Outstandingly remarkable values definition

Comment: The Congressional declaration of policy in the National Wild and Scenic Rivers Act is clear in its interpretation of "outstandingly remarkable". The values must be rare, unique, one-of-a kind in its exhibited quality or quantity considered from a regional, state, or national perspective. The Bureau is in error in its interpretation, assessment of values, and recommendation for these river segments since they do not provide the "outstandingly remarkable" values required by law.

Response: The Owyhee Canyonlands river and stream courses in southwest Idaho are considered outstanding on both a regional and national basis. Their outstandingly remarkable values, such as geology, recreation, wildlife, and scenic quality, compare favorably with other areas already included within the National Wild and Scenic Rivers system. Only a portion of the 223 miles of river determined to be eligible for WSR designation are recommended suitable for designation.

- Eligibility recommendations

Comment: The recommendations for river eligibility that were made by the BLM are in direct conflict with Alt C in that they assume that acquisition of private property and denial of rights of way access that are an integral part of ranching or base property operations.

Response: The Wild and Scenic Rivers Act recognizes the legitimacy of having non-federal lands included in National Wild and Scenic River corridors. The language of the Act specifically prohibits federal acquisition of private lands if non-federal ownership exceeds 50 % of the affected river corridor, and allows the consideration of acquisition when private land ownership is under 50%, as it is throughout the eligible segments in the Owyhee RMP. The suitable river recommendations do not require private land acquisition for effective management purposes, nor do any of the recommendations attempt to exclude access to affected non-federal lands.

- North Fork Owyhee River recommendation

Comment: The lower North Fork Owyhee River should have a wild classification, not a scenic classification. In recommending a scenic classification, the BLM allowed for future development of an extensive recreation trail. This trail would not be compatible with existing river values as it would involve the construction of a number of bridges and an alteration of the river setting. A wild classification would not rule out bridge construction (there are bridges spanning the Wild Selway River for example), but would seek to minimize such development. The North Fork Owyhee National Wild River in Oregon is directly downstream from the section in question, and it would be logical to classify the Idaho segment wild as well.

Response: In Alternative E, the recommended classification for 3.5 of the 4.0 miles of the lower North Fork Owyhee River has been revised from scenic to wild. The scenic designation is retained for the 0.5 mile segment that includes the existing North Fork Recreation Site.

- North Fork Owyhee River recommendation

Comment: The natural character of the North Fork Owyhee River must be protected. The BLM proposes placing bridges across the river, and developing a trail for hiking/equestrian use. This area is outstanding for its wilderness characteristics. The addition of bridges and a trail will diminish the special values and degrade the naturalness of the river canyon, and is not compatible with a wild river classification.

Response: The proposed alternative no longer includes any bridge construction. Construction of a primitive foot or equestrian trail is compatible with a wild river designation.

- Jump Creek recommendation

Comment: Jump Creek would be an excellent addition to the national Wild and Scenic River System. Jump Creek is the most accessible desert canyon in the Owyhee Resource Area and possibly in the region. Jump Creek's outstanding recreational, scenic, vegetative and wildlife values deserve the utmost in recognition and protection. There are no conflicts with existing or potential uses. There is no private or state land. No opposition to designation has been voiced. Jump Creek does, however, suffer from recreational overuse and abuse. Wild and Scenic River designation is the best, and possibly only, way to protect and enhance the area's values. Establishment of an ACEC in the upper canyon will not help address the biggest problem, recreation below the falls. The current SRMA has not provided adequate recreation management and resource protection, and the proposed SRMA size reduction will not help.

[redacted]

Response: Jump Creek Canyon certainly has values worth protecting, particularly related to the accessible desert canyon and riparian birch community. The preferred plan retains the original size of the Jump Creek SRMA, and the ACEC designation. Because of the serious, ongoing problems with vandalism and destruction of natural features that occurs there, Jump Creek is not judged to be manageable as a National Wild and Scenic Rivers segment. The canyon demands extensive and intensive management efforts to protect it from further damage, and to restore current damage, which are not compatible with National Wild River designation. The SRMA and ACEC designations should adequately protect the special values of the area.

- Restrictions on hunting

Comment: There are several wild and scenic river designations. Some designations do not allow hunting. The RMP should define which designation the BLM supports. The BLM should only seek those designations which allow hunting.

Response: None of the wild and scenic river designations place any restrictions on hunting. Proposed classifications for the wild and scenic river segments found suitable for designation are listed in Appendix RECT-5, River Suitability Summary.

- Recreation site construction

Comment: On Page II-135 the preferred alternative indicates that new recreation sites and new trail systems would be constructed. Wouldn't it make more sense to propose construction and development of these facilities only when demand for use, and financial obligations for construction and maintenance of such sites would support them?

Response: Recreation sites and trails proposed in the RMP are those estimated to be desirable during the life of the plan. Specific sites will not be constructed until recreational use levels warrant and funding has been obtained.

- Silver City Recreation Management Area

Comment: RECT 1 T156. The Silver City Recreation Management Area acres state 2174. Where did you come up with this figure? In 1980 DeLamar Mine, permittees and Bob Buford reached an agreement on the SRMA area to be 950 acres. Why did you change this?

Response: The Silver City Recreation Management Plan was approved in 1983 (Decision Record/Rationale, EA # ID-01-3-166). The Plan describes management of 1,200 acres of public land around Silver City, and additional public land in a 6.5 mile corridor along Jordan Creek. Most recent mapping of the area estimates the Silver City SRMA to be 2,166 acres, including the Jordan Creek corridor.

- Extensive Recreation Management Areas

Comment: FLPMA authorizes BLM to instigate SRMA areas, but where are the statutory regulations allowing the creation of an even broader category of ERMA areas? Please elaborate on the need and justification for ERMA categories and the public's right to input on this new category. If it has been previously stated, then please duplicate it in this section for the benefit of the public comment maker.

Response: BLM Manual 1623, Supplemental Program Guidance For Land Resources, states in section .41 a requirement that all resource management plans include determination of Special Recreation Management Areas (SRMA) and Extensive Recreation Management Areas (ERMA). ERMAs include all public land exclusive of SRMAs.

- Recreation costs

Comment: In Table LVST-3, what is meant by recreation cost, and how was this arrived at?

Response: Recreation costs were calculated by estimating the costs of implementing each of the management actions associated with each recreation objective. For example, estimated costs of implementing OHMV designations, building recreation sites, installing signs, and building bridges are included in the costs for one or more alternatives.

- Estimated recreation demand

Comment: Recreational data and pertinent information relating to recreation had a good source of information gathering thru user fees, permits and sticker purchasers that was not used by BLM. The OCLU has deep concerns about the reliability of the statistics used to formulate ORMP interpretations, assumptions, analysis, and 20 year plan. It needs to be stated, concerning displacement issues, that this was all based on the BLMs protection of estimated recreational demands. The most current SCORP used for these estimates was done in 1990. RMIS is updated annually.

Response: SCORTP publications for Idaho have occurred in 1983, 1990, 1995, 1997, and 1998. SCORTP publications since 1983 have provided no visitor use data by region from which to draw estimates on recreation use for Owyhee County. To project current and expected recreation use, the BLM has relied upon data including southwestern Idaho's average annual growth rate, local OHV equipment purchases, sport license purchases, registration data, visitor use counts, RMIS, and other information.

WILDERNESS

- Wilderness IMP

Comment: The Draft RMP/DEIS selects the nonimpairment language from the Wilderness IMP for inclusion within the WNES 1 objective, but largely ignores other aspects of the Wilderness IMP. Instead of paraphrasing existing guidelines in a manner that may improperly change their meaning, the WNES 1 objective should adopt the Wilderness IMP pending any final designation.

Response: Under the WNES 1 objective, Alternative E describes a second management action, which addresses this concern. It states, "Manage WSA lands in conformance with BLM Interim Management Policy For Lands Under Wilderness Review."

- South Fork Owyhee River WSA

Comment: Table WNES-2, p. T-172 - N V-010-106 is not contiguous to ID-16-53. It is contiguous to NV-010-103A. This needs to be clarified.

Response: The South Fork Owyhee River WSA is located in both Idaho and Nevada. The Idaho portion is identified as ID-16-53, and the Nevada portion is identified as NV-010-103A. You are correct that the Owyhee Canyon WSA in Nevada, NV-010-106, is contiguous to the Nevada portion of the South Fork Owyhee River WSA. This has been clarified in Table WNES-2.

- Owyhee Canyonlands Wilderness EIS

Comment: The Owyhee Canyonlands wilderness EIS was finalized in 1989. The alternatives looked at what areas to recommend for wilderness designation and different management scenarios for the areas for the next 20 years. We are nearly half-way through the 20 years planned for in the Owyhee Canyonlands Wilderness EIS. Will another wilderness plan need to be developed in 13 years? How realistic will a 20 year old plan be in the year 2009 if there is no new plan. How realistic is a 7 year old plan today? The Owyhee RMP should look at updating management scenarios.

Response: At this time, there are no significant changes in conditions that would require an amendment of the Owyhee Canyonlands Wilderness EIS.

- Wilderness Study Areas

Comment: Where do Wilderness Study Areas fit into this plan?

Response: Idaho BLM wilderness recommendations were submitted to Congress in 1991. Wilderness Study Areas within the resource area will continue to be managed under the Bureau's Interim Management Policy For Lands Under Wilderness Review until Congress designates lands as wilderness or releases them from further wilderness consideration. On WSA lands which the BLM found non-suitable for wilderness designation, actions have been identified in the RMP that would occur if the lands are released from further wilderness consideration.

- Section 202 study lands

Comment: Section 202 study lands are not defined in the Rationale or Monitoring section of WNES 1. Please include a definition of Section 202 wilderness study lands.

Response: Section 202 is the portion of FLPMA in which the public law describes BLM's land use planning authority. It is under this authority that some lands adjacent to wilderness study areas were also evaluated for wilderness suitability, and recommendations for these lands were included in the Idaho Wilderness Study Report that was submitted to Congress in 1991. Section 202 additions to WSAs came from lands within the original contiguous roadless inventory units from which WSA designations were made, in order to enhance wilderness manageability and to reflect changes in land ownership since the initial wilderness inventories were done.

- Wilderness study areas management

Comment: Wilderness study areas should not be managed as wilderness before Congressional designation.

Response: In the RMP, BLM has identified SRMA, VRM, OHV, and ACEC designations which are desirable in order to protect primitive recreation values, sensitive wildlife habitats, and other unique areas, regardless of whether the lands are designated as wilderness. BLM administrative decisions will protect these values in order to maintain a spectrum of recreational uses and opportunities. Lands that are classified as closed to OHMV use, including the lands within wild and scenic river corridors, contain few or no existing OHMV routes. Most existing routes in WSAs are in areas classified as limited to designated roads and trails in the preferred alternative.

- Management objectives for wilderness study areas

Comment: Certain activities are restricted or prohibited in wilderness study areas. Management objectives for wilderness study areas should be defined in the RMP.

Response: Bureau Manual 8550 - Interim Management Policy and Guidelines For Lands Under Wilderness Review (IMP) provides the conceptual framework and specific policy for managing public lands administered by the BLM which are under wilderness review. The primary objective is to manage WSAs so as to not impair their suitability for preservation as wilderness, until they are designated by Congress as wilderness, or until they are released from further wilderness consideration. Actions proposed in the Owyhee RMP must be in conformance with the IMP guidelines. Refer to IMP for details on permitted actions and uses within WSAs.

VISUAL RESOURCES

- Recreation impacts

Comment: Visual Resources, pages IV-A-51 and IV-B-48. The narrative predicts a potential decline in the scenic quality throughout the resource area caused in part by OHMV use. In what way does a motorcycle trail differ in scenic quality than a foot or equistrial trail? The proposed trail project in the North Fork Owyhee River area would be 2 to 4 feet wide according to the draft on page IV-A-49. There are trails in Wilderness areas that were previously used by motorcycles and they do not degrade the visual quality of those areas. Is the BLM referring to hill climbing? If so, then restrict hill climbing activities to authorized areas. People who like to ride in the Owyhee Canyonlands area are seeking a different motorized experience than the people who ride in the Owyhee SRMA.

Response: Hiking and equestrian trail proposals for the Owyhee Canyonlands would be deliberately constructed to minimize their visual impact on the affected landscape. Many miles of existing OHMV trails throughout the resource area were not deliberately constructed, and do not follow contours or routes that would minimize visual impacts. Hill climbing is one type of OHMV use that has caused visual impacts, particularly in the Owyhee Front, and the proposed plan will restrict hill climbing to one area. Future OHMV trail construction will also incorporate VRM design standards.

- Vegetation chaining

Comment: Chaining is mentioned here for the first time. Why? Is chaining contemplated? Analyze this.

Response: Chaining is one of a variety of vegetation treatments that could be used in seral juniper stands. However, due to the environmental impacts of chaining, this method is unlikely to be a preferred treatment method.

CULTURAL RESOURCES

- Data update

Comment: Chapter three describes the Owyhee Resource Area environment including the cultural resources that are present. We would like to note that your cultural resources section is based on archaeological surveys conducted over 14 years ago and considerably under represents the known prehistoric and historic sites for the Resource Area. This figure establishes the base for estimates for numbers of sites that will deteriorate, should be monitored, etc. that appear throughout this document. A brief search in our database indicates that sites in the Owyhee Resource Area now number 1,755, over three times the figure you provide. We would like to emphasize that this site total includes only those sites that have been documented.

Response: The Final Owyhee Resource Management Plan and EIS has been updated to include current information on the number and types of cultural resources found in the area.

- Oregon National Historic Trail

Comment: The legend for the Oregon National Historic Trail on Map CULT-1 (volume 3, pp. 128-129) does not appear to match the figure. Also, the trail appears to be a modern road. Is this the case? The figure is confusing to someone unfamiliar with the area. Finally, the Guffy Butte/Black Butte Archaeological District is not labeled on the figure.

Response: Map CULT-1 has been revised to clarify the location of Oregon Trail segments and to show the location of the Guffy Butte/Black Butte Archaeological District.

- Vegetation treatment impacts

Comment: IV-D 44. BLM fails to analyze impacts of vegetation treatments on cultural resources. Impacts to be analyzed include - destruction of cultural resources in burning, surface setting and context of cultural resources, etc.

Response: The list of change agents in Chapter IV was not meant to be comprehensive. Vegetation treatment projects are subject to consultation under the National Historic Preservation Act of 1966 with the Idaho State Historic Preservation Officer, Native American Tribes, and, if needed, the Advisory Council on Historic Preservation. Impacts to cultural resources are analyzed in this process with the goal of minimizing or eliminating adverse effects.

- Access to cultural resources

Comment: The cultural objectives identified in the draft plan as CULT 1 and 2 address the need to identify areas for which plans must be developed to preserve and protect significant cultural resource sites. Objective CULT 3 generally addresses increasing public educational opportunities. We believe, however, that neither the objectives nor the proposed alternatives are on the right track. Our members believe that cultural resource areas must include all of the activities that the county's earliest settlers undertook to settle this often difficult land. Historic roadways as well as isolated mines, ranches, and irrigation projects present a picture of early life here that is unique and in many cases different from what is gleaned from the more established cultural areas such as Silver City. Those isolated roads and facilities, which the OCHS views through its field trip programs, make the most significant impact on our members and the public. When we view a cultural site, after having traveled the historic route to it, the difficulties faced by our predecessors become much more apparent. The knowledge of what they had to overcome in terms of weather, topography, and distance from established supporting communities shows their accomplishments far more effectively.

As we read the draft plan, each of the alternatives seems inclined to limit access to these historic roads and locales in order to preserve them. If such a plan is put into effect the sites will still be lost. By limiting public access, you may minimize the adverse effect of visitors, but you will doom the sites by removing them from the public eye and memory. We most strongly believe that your preservation efforts must not exclude the public. Historic routes must be open for travel. Mines, ranch steads, and the remnants of man's other early activities here must remain accessible to the public. The Owyhee County Historical Society urges you to redefine the cultural resources portion of the plan to include the items mentioned above as well as other remnants of human activity in the county. We also strongly urge that the BLM's selected cultural resource management strategy be rewritten so that it does not manage the site by simply excluding the public.

Response: We agree that access to historic sites on public land is closely tied to increased appreciation of cultural resources and to public support for their protection. The proposed off highway vehicle (OHV) management strategies in the draft plan are intended to control the proliferation of new roads and trails in the resource area; not to categorically close existing roads. From a cultural resource management perspective these strategies would provide greater flexibility towards minimizing both unintentional and malicious damage to cultural properties. Decisions on whether or not to restrict access along particular routes would be weighed in a multiple-use context and based on several factors including resource conditions and public input. As pointed out, sometimes the roads themselves are historic resources. In the final plan the cultural resources section in Chapter 3 has been revised to provide a more balanced description of the types of cultural resources found in western Owyhee County.

PALEONTOLOGY

- Data correction

Comment: First one minor correction, significant Tertiary paleontologic resources are also known from the Leadore area of Idaho along the Montana border. Most of these are of slightly different geologic age than the Owyhee materials and sample a different ancient ecosystem.

Response: This correction will be made in the final plan.

- Data update

Comment: The Idaho Museum of Natural History has substantial fossil vertebrate collections from a number of localities in the Owyhee Resource Area. Dr. Laurie J. Bryant of your Casper, Wyoming office searched our locality records covering much of southwestern Idaho several years ago. I do not know if she included the Owyhee Resource Area; if not, our locality records are now computerized and searches can be conducted fairly easily. Most records of the other institutions which have collected in the area are also readily searched with the possible exception of the U.S. Geological Survey collections. There is also a good geologic map of the area (Ekren, et al., 1981, USGS Misc. Inv. Map I-1256).

Response: The final plan will incorporate current knowledge based on an updated records search.

AREA OF CRITICAL ENVIRONMENTAL CONCERN

- State and private lands

Comment: The BLM has no right to designate the use of lands that do not belong to them and put them under the jurisdiction of the BLM. Why are private and state owned lands included within ACEC boundaries?

Response: Although there may be State and private lands within the boundaries of some proposed ACECs, the ACEC designation and associated management actions would only apply to the public lands administered by BLM within each area. The acreage figures for the various proposed ACECs include only public lands.

- Inadequate narrative

Comment: This narrative is wholly inadequate and does not contain the detailed information necessary for the general public to develop an informed position as to the legitimacy and need for these ACEC proposals.

Response: Additional information is provided for many of the potential ACECs in Chapter 3 of the proposed RMP and final EIS. Table ACEC-1 also summarizes the important and relevant values of each potential area.

- New range facilities - Bighorn Sheep Habitat Area

Comment: Any construction of new rangeland facilities should be prohibited within any of the Owyhee River SRMA's or within one mile of the Owyhee River Bighorn Sheep ACEC.

Response: As carried forward in Alternative E from the 1981 Owyhee River Bighorn Sheep Habitat Area ACEC Management Plan, no livestock water developments or other livestock facilities would be developed within one mile of the ACEC unless potential adverse impacts can be avoided or mitigated. Table ACEC-E identifies these restrictions or prohibitions for the Bighorn Sheep Habitat Area.

- NEPA compliance

Comment: The BLM alternative establishes 13 additional ACEC's covering 105,274 acres in order to protect 10 different resource values. Withdrawal of this land is a major Federal action requiring individual NEPA compliance for each proposed ACEC. Kinross is particularly concerned with the proposed ACEC north of the mine. This area would be protected for its cultural resource value. The BLM must analyze and present data that would support the need for special management. Why can't the area be managed through standard management procedures? The ACEC designation must be reserved for those areas where special management needs can not be carried out through standard management procedures.

Response: There is no requirement that these designations be subjected to individual NEPA compliance or public participation processes. By considering all of these potential designations during this planning process, both the individual and cumulative impacts, a NEPA requirement, are addressed and the public has the opportunity to provide input on the various alternatives. The area referred to north of the mine is Rooster Comb Peak. It would not be designated under Alternative E.

- Evaluation criteria

Comment: Please include a more generalized and understandable description of the 'Further guidance and evaluation criteria' found at 43 CFR Part 1610.7-2. The public should not have to go out and locate 43 CFR Part 1610.7-2 in order to understand why another 156,596 acres is being removed from their use and enjoyment.

Response: In order to be a potential ACEC, both of the following evaluation criteria must be met. These criteria are found at 43 CFR Part 1610.7-2:

1. "Relevance - There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.

2. Importance - The above described value, resource, system, process, or hazard shall have substantial significance and values. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to human life or property."

We do not agree that ACEC designation removes these lands from "the use and enjoyment" of the public. While some activities are restricted or prohibited, all areas continue to remain open to the public.

- Lack of evidence to support designation

Comment: FLPMA requires that the BLM give priority in the planning process to designation and protection of areas of critical environmental concern (ACECs). Such areas are defined as areas where special management attention is required to protect and prevent irreparable damage to important historic, cultural or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. There is no evidence to support a claim that special management is needed for the proposed ACECs. Management is currently in place to fully preserve the special values of the proposed areas indicating that special management is not immediately necessary for the value to be maintained.

Response: An interdisciplinary team evaluated each of the potential ACECs as to whether they met the "importance" and "relevance" criteria, along with their need for special management. During this process, change agents (management actions that when implemented would cause or produce impacts) were identified for each area. For those areas where existing management was determined to be insufficient to protect significant resources, designation was recommended. All areas were reevaluated in preparation for the Proposed RMP and Final EIS, and some adjustments in ACEC boundaries and designations have been proposed under Alternative E.

SOCIAL & ECONOMIC CONDITIONS

-Grazing preference rights

Comment: Grazing preference rights have a very important market value attached to the base property. Market value is real and preference rights are regularly bought, sold, traded, mortgaged, inherited and taxed. The failure of the Owyhee Resource Area to recognize the market value of grazing preference rights in their economic analysis suggests an intent to devalue these rights.

Response: There is no question that grazing permits carry value beyond those fees collected by Federal agencies. Even those preference rights that are not used, so long as they are assigned to a specific ranch operation, have value for the operator. However, it is out of the control of Federal agencies in how these values are used or allocated. They are dependent on the ranch real estate market, the policies of lending institutions and future expectation of cattle ranching in general, and public land ranching in particular. The future uncertainty of public land grazing has as much to do with the economics of the industry as it does with federal agency natural resource planning on the public lands. There is no intent by the Federal government to either create value nor to devalue grazing permits. The assignment of risk lies within the realm of the permit holder and has not been transferred to the Federal agency since the enactment of the Taylor Grazing Act. We recognize that some of the alternatives will negatively affect the marketability of those remaining grazing preference rights while other alternatives will positively affect the marketability of those additional grazing preference rights.

- Individual ranch impacts

Comment: What is the true multiplier effect for the cattle industry in Owyhee county? What is the effect on each individual ranch and its operation going to be when the 35 percent cuts are enforced?

Response: We are unable to evaluate each individual ranch operation (right of nondisclosure) however, the analysis in the impacts chapter discusses typical ranch operations by size groupings. Please see each alternative discussion for the results.

- Recreation values

Comment: Recreation values are not above reproach. To justify cuts in basic industries (ranching and mining) by the existence value of recreation is the crowning. The analyst is comparing apples and oranges in this presentation.

Response: It was not the intent to compare recreation values to ranching or mining but only to give a description that there are other values associated with the natural resources in the Owyhee Resource Area. In some cases recreational use is compatible, in others complementary and in still others competitive to the activities of basic resources. We did not say or suggest that a recreation day was equal to; greater than; or less than an AUM. We were only trying to identify that there exists additional values within the resource area.

- Rural community impacts

Comment: Please explain why the social and economic impacts to the rural communities and county were not adequately and realistically analyzed. The inclusion of the highly populated and industrialized counties of Ada and Canyon in the economic data disguises the dependence of the people of Owyhee upon livestock grazing use.

Response: We have revised our analysis to confine the impacts of livestock grazing to Owyhee county for purposes of evaluating the impacts on the people of Owyhee county. However, it must be recognized that many users of the public land resources within the Owyhee Resource Area come from Ada and Canyon counties. Also, many of the goods and services that Owyhee county residents need are purchased in Ada and Canyon counties. Generally, both mining and livestock products generated with Owyhee county are then exported not to return again to create additional value for the economy of Owyhee county.

- Payment in lieu of taxes

Comment: I doubt that Owyhee county considers payment in lieu of taxes (PILT) as a factor that does not "represent a significant portion of the county's budget."

Response: There is no doubt that 10 percent of any budget is significant. The statement has been revised. It should be noted however, because of the method for calculating PILT (the formula considers the amount of federal land ownership and population), this portion of the county's budget will remain unaffected by the actions of the proposed resource management plan. This does not mean that the county would not be impacted through changes in property values due to reductions in property held within the county. Resource management strategies may impact property values as indicated above in the response to the affects on grazing preference rights.

- Endowment fund impacts

Comment: There is no assessment of the impacts that BLM's proposed alternative might have on long term returns to endowment-funded institutions. There is no information in the draft indicating the Bureau has consulted with the Idaho Department of Lands or the State Land Board with regard to how the allotment closures in alternative C would affect income to the state school endowment fund.

Response: This is a particularly difficult one to analyze since we are unable to project how each ranch operator would react to changes in grazing use. If BLM were to reduce seasonal grazing use would the state be able to increase grazing activity or would they be limited to current levels (therefore having no impact, positive or negative) during certain times of the year depends on their ability to have forage available. If, on the other hand, because of reduced levels of BLM grazing, ranch operations would cut back on their use of all government (both federal and state) grazing options then the state land board would see a reduction in the amount of endowment funds collected. Prior to any actual cuts it would be imperative for the ranch operator and the federal and state agencies to review and coordinate the grazing activities to minimize the impacts.

- Land Use Plan authority

Comment: The BLM is authorized to develop land use plans only within the guidance of current governing federal statutes. It is not the liberty of BLM to make determinations on land use outside of standards set by congress. It appears the BLM intends to establish priorities for land use and develop management plans to support such use without appropriate congressional approval.

Response: It is unclear what is being suggested. Does BLM intend to develop a land use plan? Yes, if you consider that a Resource Management Plan is one and the same. Does BLM set standards outside of the purview of Congress? No, it does not. Does BLM look into the future and the changing nature of societal values to consider what may come to pass? We should always be looking to the future with a certain expectation if only to help us understand how we may be impacting our fellow man now. BLM will not intentionally overstep its authority but will not hesitate to give congress the benefit of our knowledge to help them perform their tasks as governmental overseers.

GENERAL COMMENTS

- National Environmental Policy Act (NEPA) documentation

Comment: Designation of Special Recreation Management Areas (SRMAs), Wild and Scenic River segments and Areas of Critical Environmental Concern (ACECs) should be subjected to individual NEPA compliance and public participation processes.

Response: There is no requirement that these designations be subjected to individual NEPA compliance or public participation processes. By considering all of these potential designations during this planning process, both the individual and cumulative impacts, a NEPA requirement, are addressed and the public has the opportunity to provide input on the various alternatives.

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- Administrative costs

Comment: BLM must provide complete figures on site specific planning and design, NEPA, salaries, site rehabilitation costs and other administrative costs in Table LVST-3.
Response: Cost figures are projected for comparison purposes among the alternatives. Administrative costs are assumed, for the purpose of analysis, to be comparable among the alternatives. It is also assumed that sufficient funding and workforce would be available to implement any of the alternatives.

- Impacts on State and private lands

Comment: There is no information in the DEIS that fully discloses impacts on private lands, State lands, property rights or financial interests. Most allotments are made up of mixed ownership including intermingled and unfenced private lands and State lands. When constraints on livestock grazing are imposed as in Alternative C, private land owners or state land lessees cannot use those lands.
Response: We have little or no information available on State or private lands. Impacts are generally assumed to be similar or comparable to impacts on public lands where resource conditions are also similar or comparable. We have not identified any impacts on property rights or financial interests.

- Takings assessment

Comment: Many allotments are made up of mixed ownership, including State and private lands. When calendar date or stubble height requirements are imposed, private land owners or state land lessees cannot use their land or their adjudicated grazing preference rights. If fencing the land is prohibitive in cost, as it is in most cases, the private land will be placed under federal control. The Bureau should have done a taking implication assessment. Please explain why the Draft did not address the takings implications related to the impacts of Alternative C on private property.
Response: We do not feel that a takings assessment is appropriate since no takings impacts have been identified.

- Approval of grazing systems in Alternative C

Comment: In Alternative C management actions require development and implementation of "approved" grazing systems within two years in all pastures where there is unsatisfactory water quality, riparian conditions or fish habitat conditions or grazing will be eliminated by July 15. It takes at least four years to get clearance to construct fences, develop water and other livestock management facilities necessary for a gazing system. The National Riparian Team states it takes 10 to 12 years of proper management to see proper functioning riparian areas. How realistic is it to expect to be able to develop and implement a grazing system and to see improvement within the 2 years?
Response: Management actions in Alternative C state "Within two years, approve and implement grazing systems..." to meet water quality, riparian and fishery habitat objectives in those pastures where these conditions are unsatisfactory or livestock use will not be authorized beyond July 15. We recognize that it would often require more than two years to complete range improvements needed to support grazing systems. It would also take several more years to determine if progress were being made toward improving resource conditions. The intent is to have a management strategy in place within two years that will improve unsatisfactory water quality, riparian conditions or fish habitat conditions. Once a grazing system with identified range improvements were approved, this management action would be considered to be completed, even though several years may be needed to fully install and implement all of the needed components. This management strategy has not been incorporated into the preferred Alternative E.

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- Alternative B evaluation

Comment: There is a wide disparity in how the authors evaluated the environmental consequences of the different alternatives. In several instances the authors described a negative impact for Alternative B while the same management action was determined to have a positive impact in Alternative C. With Alternative B, the authors identified perceived negative impacts due to no action, but did not identify obvious negative impacts due to no action in Alternative C. Some of the conclusions on environmental consequences of management actions among the alternatives are contradictory, inconsistent and illogical.

The narration indicates that livestock grazing would be increased by 11% over the current active preference. Alternative B, clearly states that any increase would occur only if careful and complete monitoring indicated that such an increase was sustainable and compatible with other resource values. Alternative B states "Grazing stocking levels will be reviewed and adjusted only in accordance with developed AMPs and/or trend monitoring data and/or in accordance with trend monitoring data completed at five year intervals following implementation of AMPs." Alternative B cannot logically suggest that an increase in livestock grazing use would cause any negative environmental consequences.

Response: The analysis for all alternatives has been reviewed and appropriate revisions have been made.

- Planning criteria

Comment: The planning criteria and rationale should be revised to reflect the letter and intent of the Federal statutes providing management direction and guidance for each of the planning issues. The planning criteria should be based solely on government statutes and not on BLM policy or other planning documents that have not been subject to public review. The nineteen identified concerns are each written to indicate that they are the priority issue. Management constraints and limitations for each issue is written in a manner that either places a significant requirement for managing the issue to the exclusion of other issues. Rather than setting appropriate management direction to guide development of the RMP, the program planning criteria either require or deny management options that adversely affect other resource values.

Response: Planning criteria were developed, with public participation, to guide how the various resources are to be managed. Specific laws and regulations apply to specific resources and were used as a basis for the criteria. Objectives and management actions were developed to address the planning criteria and resolve potential conflicts among resource programs. The planning criteria, management objectives and management actions have been review and appropriate revisions have been incorporated into the final document.

- Standards and Guidelines

Comment: The DEIS indicates that the agency preferred Alternative C was evaluated against the fall back standards and guidelines and found to be in conformance. It also states that when new standards and guidelines are developed for Idaho they will also be evaluated against Alternative C. There is no indication that the other alternatives were, or will be, evaluated. Are any of the other alternatives in conformance?

Response: The Idaho State Director of the Bureau of Land Management, in consultation with the three resource advisory councils in Idaho developed standards and guidelines for livestock grazing which were approved by the Secretary of Interior on August 12, 1997 (see Appendix LVST-2). All of the alternatives were evaluated and it was concluded that any alternative could, and would, be implemented in conformance with the standards and guidelines.

- Reduced livestock use level of 35%

Comment: Alternative C would immediately reduce livestock grazing use by 35%. There is no information or criteria provided as to how the figure 35% was determined. It is contradictory to the management action that would allow planned approved and implemented grazing systems to avoid a July 15 closure.

Response: The 35% reduced stocking level is a product of the environmental analysis and is the average over the entire resource area. That reduced level was based primarily on reductions attributed to ending the grazing season on July 15 in those allotments with unsatisfactory riparian condition where it was projected

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that the riparian objective was not likely to be met with grazing systems and range projects. Rather than an immediate reduction in use, permittees would have two years to obtain approval of a grazing system before such reductions in stocking levels would be made. This has been clarified in the final document. This management action has not been included in the preferred alternative E.

- Wilderness study area consideration

Comment: Appendix LVST-1 lists "Congressional special designation (Wilderness Study Area)" as an additional management consideration. Congress has not, to date given BLM authority to designate WSAs, and BLM has not been directed by Congress to undertake these designations and eligibility assessments.
Response: Wilderness study areas were listed as a management concern in those areas where they exist because certain constraints apply to these areas until Congress makes a determination on their status. These areas are to be managed so as not to impair their suitability until Congress makes a determination. Recommendations on these areas have been forwarded to Congress.

- Wild and scenic rivers study

Comment: By federal statutes, determining suitability of eligible rivers are only to be taken under authorization by the Congress of the United States. Congress has reserved the right to authorize suitability studies and they have not done so in this case. By lumping all the river segments into this document, the Bureau has avoided the public input sought through the NEPA for every major federal action.
Response: The National Wild and Scenic Rivers Act (P.L. 90-542), Section 5(d), requires the Secretary of the Interior to identify "river" segments which are eligible to receive consideration as potential wild, scenic, and recreational river areas. Section 5(d) further directs the Secretary to determine which eligible river segments should be evaluated in the BLM planning process "... as alternatives to the developments being planned." This evaluation is referred to as the suitability determination. The procedures by which the BLM determines eligibility and suitability are described in 43 CFR 8351 (Designated National Areas) and the USDI-USDA Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454).

- Wild and scenic rivers designations as change agents

Comment: The authors list national rivers designation as a change agent. National rivers designation could not possibly be considered a change agent because this is totally outside of the control of the bureau. National rivers designation is a Congressional function that is not likely to occur within the 20 year planning cycle. Some studies completed 20 years ago, still have had no congressional action taken.
Response: National rivers designation was identified as a change agent for river segments recommended as suitable for designation since certain constraints would generally apply to those areas if designated by Congress. For those areas recommended suitable, interim protection will be provided while awaiting a determination by Congress.

- Fire effects

Comment: The DEIS does not contain environmental consequences for prescribed fire or fire management for any of the alternatives. While prescribed fire is one vegetation treatment tool, wildfires can influence the vegetation significantly and in some cases the influence will be present for a very long time. Since the authors acknowledge that all of the vegetation types in the resource area are fire related, it is of significant concern that fire is not listed among the change agents.
Response: Prescribed fire and wildfire are addressed in the analysis of impacts. For some resource topics prescribed fire is specifically listed as a change agent and for other resources prescribed fire is included in the discussion of vegetation treatments.

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- Issues

Comment: The DEIS has only three "comprehensive" issues; lands, vegetation, and recreation. The relationship between the three issues and the actual analysis of effects remains unclear.
Response: The concerns identified during scoping were grouped into the three issue categories to display general areas of concern. The analysis is conducted on resource components according to BLM planning guidance.

- Objective duplication

Comment: Many of the planning issues should be combined to eliminate duplication. The interdependence and similarities of several issues indicate that they should be considered together. This would simplify and improve public understanding and would reduce the duplication of objectives, rational, management actions and analysis of environmental impacts. The Water, Riparian Wetland and Fish Habitat issues should be a single issue with common management actions. The Soils Resources and Vegetation Resources issues should also be a single issue with common management actions. Why are these treated as separate issues? Objectives are not only too narrow in scope and written as though each one has precedence over all others.
Response: It is true that there are similarities among some of the objectives and management actions, just as there are close relationship among some of the resources. The objectives and management actions were developed for each resource in accordance with BLM planning guidance which specifies the resource categories and their related program requirements in the land use planning process.

- Objectives unrealistic

Comment: Some objectives are totally unrealistic and impossible to achieve. The basic premise in developing an objective is that it is both achievable and measurable. Objective SOIL 2 is not achievable under any circumstance and even if it were, monitoring every acre under 3500' elevation could not be accomplished to verify achievement. Some of the objectives are written to the exclusion of others such as WDLF 1, WDLF 2 and WDLF 3 which all propose to mange common acres of range to produce ideal habitat for three values that have entirely different requirements.
Response: All objectives have been reviewed and several have been revised to incorporate these concerns. The reader is referenced specifically to the revised objectives for vegetation, soil and wildlife.

- Owyhee County Plan

Comment: The authors failed to properly coordinate this planning effort with Owyhee County as is required by Statute. Owyhee County has had an approved and adopted land use plan for several years for Federal and State lands. The draft completely ignored statutory requirements for assuring that Federal plans conform to local plans to the greatest extent possible. The language of the Federal Statutes makes it clear that all alternatives should take into consideration conformity with local land use plans.
Response: The draft document was sent to other Federal agencies, State and local governments and Indian Tribes for their review to identify any inconsistencies with their officially approved or adopted resource related plans, policies and programs. No specific inconsistencies have been forwarded to us.

- Objective rationale

Comment: The Objective Development section indicates that the objectives were developed to address the future desired condition or status of the various resources. It further states that they are based on law and regulation. While the law and regulations quoted in the document are accurate they are selectively used and do not reflect the full scope of the Federal Statutes they are taken from. The bureau needs to re-evaluate the objectives and rationale for every issue to assure that all of the statutory standards are acknowledged and addressed.
Response: The rationale for the various objectives has been reviewed and appropriate revisions have been made.

- Data not reliable

Comment: Data and field surveys used are so old and out dated that they can not be a starting point for the RMP to begin. The data you use to support your proposals are from 10 to 20 years old or non-existent. Instead of reliable data you repeatedly use statements such as "estimated", "assumed", "expected", "are thought to be", "have likely impacted" and "probably". These statements serve to identify your lack of reliable, on the ground, data on which to base your decisions. This shortcoming should put the implementation of the RMP on hold until the conditions of the resource can be accurately and fairly assessed. The final document should have all of the , inaccurate and inappropriate statements, biased language, and inaccurate consequence assessments corrected.

Response: The document was prepared based on the best available information. In some instances that information was several years old. Other information is based on professional judgement of the BLM staff. The final document has been revised to update the information to use the best available which can be reasonable supported. The entire document has been reviewed and appropriate revisions made to correct inconsistencies and inaccuracies and to update information.

- Change agents

Comment: How are national river designation, ACEC, SRMA, Wilderness, etc. change agents that would cause negative impacts on the various resources listed? What is the rationale for listing these as change agents?

Response: Designation alone does not cause impacts and is not technically a change agent. However, designation of these areas includes implementation of specific management actions. It is these specific management actions that would cause impacts and are the true change agents. Designations are listed as change agents for brevity and so the reader can understand why specific impacts would occur. Change agents can result in beneficial or adverse impacts to a particular resource.

- Juniper control

Comment: How does the Bureau plan to meet soil resources, wildlife habitat, riparian-wetland, fisheries, vegetation, upland, and watershed objectives when the proposed Alternative C does not provide for juniper control to the extent required to prevent further resource deterioration because of juniper encroachment?

Response: The preferred Alternative E proposes a higher and more aggressive level of juniper management to improve resource conditions.

- Alternative D

Comment: Please comment on the full text of the Desert Group's Plan D and include their text in the final EIS under the section heading of public comment.

Response: Alternative D is accurately presented based on interpretation and analysis of information submitted by the Desert Group.

- Range of alternatives

Comment: The Draft EIS does not contain the full range of alternatives required by NEPA. While there are four (4) alternatives, they an have the same planning criteria, same objectives and same rationale for the objectives. Since all alternatives have the same objectives there is, in reality, only one true alternative.

Response: We feel that there is a range a reasonable alternatives as defined in NEPA and the CEQ implementing regulations. Each alternative has a different emphasis regarding resource use and protection, and commodity development opportunities. The alternatives are compared on the basis of their ability to meet a common set of objectives; some alternatives meet the various objectives differently than others.

- Americans with Disabilities Act (ADA)

Comment: Where are the provisions for the DISABILITY ACT? By not providing for this provision you are in violation of Federal laws that you are bound to up hold. At present time you are in violation of the disability act along the Snake River in Owyhee County, Ada County and Canyon County.

Response: One of the provisions of the Americans with Disabilities Act (ADA) addresses facility accessibility to persons with disabilities. Any new construction of facilities within the Owyhee Resource Area will be designed to be in compliance with the ADA. Any renovation of existing facilities will also include design features to be in compliance with the ADA.

- Vegetation Treatment

Comment: BLM fails to analyze impacts of chemical treatment on all resources (air, soil, water, vegetation, wildlife, aquatic organisms, recreational use) in the ORA. BLM must discuss the types of chemicals to be used, their persistence in soil and water, impacts on non-target organisms, impacts on special status species, impacts on recreational use, economics of application, specific application scenarios, alterative uses of land foregone, etc. Treatment of more than 40,000 acres of public land with chemicals in the ORA is a major federal action which must be evaluated in a separate EIS.

Response: Impacts of vegetation treatments, including chemical application, on various resources was analyzed in the "Vegetation Treatment on BLM Lands in Thirteen Western States" EIS (May 1991). It is projected that chemical and mechanical vegetation treatments would occur on about 10,000 acres, about 10% of the total identified for treatment, in the preferred alternative E.

- Mitigation

Comment: There are numerous references within the CFR, CEQ, and NEPA which dictate that mitigation measures will be reviewed and discussed. The BLM has failed to identify any mitigation measures for the long list of proposed "range improvements." Until this is done, the BLM will have failed to meet critical statutory requirements.

Response: Mitigation does not appear in a separate section in the document but mitigating measures are incorporated into the management actions. Site specific mitigating measures are generally not identified at the RMP level of planning because the level of detail needed for facility placement is not known. Appendix RISP-1 addresses standard procedures and design elements for range improvement which incorporates mitigation. Subsequent site specific design and analyses will address appropriate mitigating measures. It was assumed for analysis purposes in this document that site specific mitigating measures would be applied.

- Cumulative impacts

Comment: There is a lack of cumulative effects analysis. The CEQ Regulations clearly require disclosure of direct, indirect, and cumulative effects. In view of the past, present, and reasonable foreseeable future actions on State lands, private lands, and in the air (bombing range overflights), the net effects of the management plan will be accentuated and compounded by these other effects. How are state and private lands being managed? What is their ecological condition? Are they contributing to water quality problems? Introduction of noxious weeds? Timber harvesting? Vegetation treatments? Wildlife problems? Special Status Species problems?, Etc.? A true cumulative effects analysis will acknowledge these other activities and describe their effects when added to the effects of the RMP, even if such a description is more qualitative than quantitative.

Response: Cumulative impacts are not displayed in a separate section but are addressed in the analyses for the various resources. There is very little information regarding resource conditions on State and private lands. It is assumed that impacts on various resources on State and private lands would be similar to impacts on public lands, given similar resource conditions on all lands.

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- ICBEMP - Interior Columbia Basin Ecosystem Management Project

Comment: The DEIS does not make any obvious connection between it and the Interior Columbia Basin Ecosystem Management Process Environmental Impact Statement (ICBEMP EIS). The encompassing nature of the ICBEMP management strategy needs to be explained. Any prescriptive measures that come out of ICBEMP will likely supersede measures put in place under the Owyhee RMP. The FEIS should discuss whether or not specific actions on BLM lands, such as those proposed in the Owyhee DEIS, would be tiered off the ICBEMP EIS. Also, the FEIS should describe how the watershed analyses would be conducted and how this project would remain within the guidance issued in the ICBEMP EIS. Ideally, it would be better that the Owyhee RMP be developed under the guidance set out in a final UCRB management strategy.

Response: The Interior Columbia Basin Ecosystem Management Project (ICBEMP) is projected to be completed in the year 2000. Completion of the Owyhee RMP by December, 1999 is required under a ruling from the Federal District Court of Idaho. Until ICBEMP is completed, it cannot be applied as guiding direction. However, staff and management have kept apprized of the development of the ICBEMP and believe that management direction in the Owyhee RMP is consistent with the overall direction of the ICBEMP as developed to date.

When the record of decision (ROD) for the ICBEMP is signed, 65 BLM and Forest Service land use plans within the basin will be amended. The Owyhee RMP will be one of those 65 plans. The amendment process will entail the incorporation of management direction from ICBEMP into the RMP in a hierarchical manner. If there is management direction in the RMP that is inconsistent with ICBEMP, the RMP will be revised to ensure consistency. If there is management direction in ICBEMP that is not addressed in the RMP, and that management direction is applicable to the Owyhee Resource Area, it will be incorporated into the RMP. If there is management direction in the RMP that is consistent with the ICBEMP, but is more detailed, it will be retained. If there is management direction in the RMP that is not addressed in ICBEMP, but does not conflict, it will be retained.

- Animal Damage Control

Comment: Animal Damage Control activities are an antiquated and largely ineffective method to promote domestic livestock grazing at the expense of native wildlife. The objectives seem to imply that wildlife have a place on the public lands and suggests this costly destruction of wildlife is unwarranted. The preferred alterative should include actions to prevent or at least encourage minimization of these actions. The ranching community could be required to use other methods for the management of livestock to minimize losses, without destruction of wildlife. Additionally, the BLM neglected to discuss the impacts of ADC on wildlife within the ORA. The public would be very interested in these activities, both the impacts to wildlife, and the additional dollars the public is spending to kill wildlife for improved production of domestic beef on the public's lands!

Response: With the completion of an Environmental Assessment and filing of a Finding of No Significant Impact and Decision on July 22, 1996 for predator damage management in Southern Idaho, the Animal and Plant Health Inspection Service, U.S. Department of Agriculture (APHIS) assumed the role of conducting NEPA compliance on their agencies animal damage control (ADC) activities. The Southern Idaho environmental assessment is tiered to the National Damage Control Program Environmental Impact Statement completed in April 1994. Impacts on various resources are addressed in those documents.

- Military use of public lands

Comment: In 1992 the BLM, National Park Service, U.S. Fish and Wildlife Service, and the Federal Aviation Administration signed an Interagency Agreement where the agencies agreed to "identify specific field units where low-flying aircraft may constitute an adverse impact on resources and to convey specific information to the FAA for appropriate action as described..." The BLM should, as part of the Owyhee RMP process, identify the WSAs within the Owyhee, Bruneau and Jarbidge Resource Areas as "specific field units" needing actions to restrict the impacts of low-flying aircraft, specifically military aircraft. As recommended in the Interagency Agreement, a minimum of 2000 feet above ground level should be the minimum altitude for aircraft flying in airspace over WSAs. The BLM should petition the FAA for adoption of these airspace restrictions as part of the Owyhee RMP process.

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The plan needs to address the impact of military activities on the area's wilderness values. When floating through the most rugged sections of the canyons, which are generally inaccessible to livestock and OHMVs, by far the single biggest intrusion is from the Air Force. This includes sonic booms, low overflights, flights down in the canyons, multiple pass overs, and the presence of chaff. The Carson City Field Office of the BLM has released a report on the "Military Use of Public Lands" which makes some strong recommendations regarding what activities are acceptable on public lands outside of the actual military withdrawal. I would strongly encourage the Boise BLM to incorporate some of these guidelines into the ORMP. I recommend the BLM implement the Final Report on Military Use of Public Lands, Workshop -March 4 & 5 1997, Carson City Field Office.

Military use of chaff, flares, and low-altitude supersonic flights all negatively impact wilderness values. Each year the military sends more low-level subsonic and supersonic jet fighters and heavy bombers into the skies above the Owyhees, degrading the sense of solitude, silence, and wild character of the Owyhees. How will the proposed Air Force bombing range expansions affect solitude and wilderness values? Will additional range fires be started? What about access to potential emitter sites? Is storage of any kind being considered? Etc.? The BLM must work toward eliminating or minimizing those impacts over WSAs and other special management areas. The Owyhee RMP should require an Air Force NEPA study of military noise and pollution effects on the Owyhee Resource area from their proposed expanded bombing range.

Response: The primary intent of the 1992 interagency agreement signed by the BLM, National Park Service, U.S. Fish and Wildlife Service, and the Federal Aviation Administration was to address emerging conflicts with low-flying aircraft outside of existing Military Operating Areas (MOAs). The Owyhee MOA, overlying the southern part of the Owyhee Resource Area, has been used since World War II and authorizes military flights down to 100 feet above ground level (AGL). This MOA was already in place during the 1970's and 1980's when BLM identified the wilderness study areas (WSAs), and BLM concluded that the existing low-level flights did not disqualify the WSAs from further consideration.

The number of military flights within the Owyhee MOA has been addressed in several EISs prepared since 1989, the most recent of which is the Enhanced Training in Idaho Final EIS published in January 1998. Subsequently, in October 1998, Public Law 105-261 was passed, withdrawing an area of public land for the Juniper Butte Range and establishing guidelines for managing related military operations. The BLM is continuing to work with the Air Force in developing and implementing appropriate mitigation measures in accordance with the new law.

Since 1989, the Air Force has proposed various changes in military operations in southern Idaho. None of these proposals have included major changes within the Owyhee Resource Area. The most recent proposal, Enhanced Training in Idaho, was analyzed in a final Environmental Impact Statement published in January 1998 and was approved by the Juniper Butte Range Withdrawal Act, Public Law 105-261. BLM will work closely with the Air Force to implement that law as it relates to the management of public lands. The law is not expected to result in any significant revisions involving the Owyhee Resource Management Plan.

- Livestock grazing objective

Comment: The RMP should contain a TRUE Livestock Grazing Management planning objective along with rationale taken from the Taylor Grazing Act, Federal Land Policy and Management Act and the Public Rangeland Improvement Act. The livestock grazing objective is written in a manner that gives all other objectives priority over livestock grazing use. All of the issues related to each allotment are directly addressed by other objectives. The Draft EIS treats grazing management as the lowest priority use which is severely limited in order to promote other uses of the land. The narrative explains a systematic process for identifying and addressing all resource issues except the continuation of grazing as mandated by the statutes.

Response: The livestock management objective has been revised to address this concern.

- Taylor Grazing Act

Comment: Judge Brimmer pointed out that the Taylor Grazing Act required that the grazing preference created by the Act must be "adequately safeguarded", and that the BLM had the "affirmative duty" of doing so. Your draft EIS does not take this grazing preference into account, it does not take the congressional policy or your "affirmative duty" to safeguard such preference into account.

Response: The Federal Land Policy and Management Act (FLPMA) 1976 instructs the BLM to manage the public lands under the principles of multiple use and sustained yield. The public lands must be managed for economic, recreational and scientific purposes without inflicting permanent damage. Congress has granted the Secretary broad discretionary authority to balance the interests of those who wish to use public lands against the need to protect it from injury.

All alternatives propose a certain level of livestock grazing use. The different alternatives do not disregard grazing preference. The authorized officer has the authority to limit or exclude grazing to the extent necessary to achieve land use plan objectives and to specify terms and conditions including, but not limited to, the number of livestock and seasons-of-use necessary to facilitate achieving the objectives of land use plans.

- Planning regulations

Comment: The Draft RMP/DEIS Is an Illogical Hybrid of Regional and Site-Specific Planning Decisions. The NEPA planning process requires a proper relation between regional, long term objectives and detailed, site-specific actions. Following the description of the general types of activities and objectives appropriately decided in an RMP, the agency's own definition explains: [An RMP] is not a final implementation decision on actions which require further specific plan, process steps, or decisions under specific provisions of law and regulations. Throughout the Draft RMP/DEIS, site-specific management actions are proposed under the guise of general RMP planning. The RMP process should be about general planning direction; not implementation of site-specific management actions.

Response: The RMP establishes general program guidance for all resources. In addition, program guidance for some resource programs specifically require that a more detailed level of decisions to be made. That is why there are various levels of detail in the proposed decisions among the resources.

- Data citations

Comment: The Draft RMP/DEIS Fails to Support Technical Conclusions. An agency generating an EIS is entitled to great deference when interpreting complex scientific information. Multiple use resource management is an intricate balancing process. However, the agency is still required to identify experts that it relies upon, and must explain to the public the methodology employed so that a rational dialogue can exist addressing the scientific integrity of the agency's product. Instead of documenting methods or supporting conclusions, the Draft RMP/DEIS regularly expects its reader to accept the agency's conclusions on faith alone. Chapter III is littered with unsubstantiated generalizations about impacts and causal relationships. Instead of promoting a rational dialogue about the bases for agency conclusions, the Draft RMP/DEIS avoids citation to scientific methods in the areas where such citation is essential.

Response: Appropriate sections of the document have been revised to address this concern.

- Other agency coordination

Comment: The FEIS should further document coordination with state agencies in planning and land management activities in the ORA. For example, the State of Idaho (State) owns thousands of acres of land within the ORA, and the Idaho Department of Fish and Game (IDF&G) manages the fish and wildlife species in the ORA. The FEIS should address how this plan integrates with management plans for lands in adjacent BLM resource areas (RAs) in Idaho and Oregon. The FEIS should clarify the coordination that has taken place and identify opportunities for additional coordination of planning and management activities.

Response: The BLM regularly coordinates with other Federal and State agencies on a continuing basis on issues and concerns for all programs. This coordination will continue to occur in the future.

Name	Position	Responsibility	Education	Experience
Daryl Albiston	Area Manager	Policy Guidance Decision Making	B.S. Biology, Boise State University	11 years, BLM, Management 5 years, BLM, Natural Resource Spec. 2 years, BLM, Botanist 5 years, BLM, Fire Management
John Benedict	Recreation	Recreation Visual Resources Wilderness	B.S. Forestry, University of California, Berkeley	23 years, BLM, Recreation
Dana Dance	Fisheries Biologist	Fisheries Water Quality Riparian	B.S. Fish and Wildlife Management, Montana State University	8 years, BLM, Fisheries 9 years, BLM, Soils 5 years, BLM, Watershed 2 years, BLM, Range
Ann DeBolt	Botanist	Special Status Plants, ACEC	M.S. Biology, Oregon State University B.A. Botany, University of Montana	12 years, BLM, Botanist 4 years, NPS, Biological Tech
Jean Fend	Geologist	Geology Minerals	B.S. Geology, Boise State University	7 years, BLM, Geology 2 years, BLM, Hydrology
Galen Green	Fire Management Specialist	Fire Management	B.S. Range and Forest Management, Colorado State University	17 years, BLM, Fire Ecologist 9 years, BLM, Forester
Joan Howard	Area Clerk	Word Processing	High School	12 years, BLM, Area Clerk, word processing
Mary Jones	Writer-Editor	Word Processing Editing	General Studies Northern Virginia Community College	1 year, BLM, Writer-Editor 1 year, BLM, Management Assistant 6 years BLM, Public Contact Specialist
Pat Kane	Rangeland Management Specialist	Vegetation	B.S. Range Management, Utah State University	20 years, BLM, Range
Mike Mathis	Wildlife	Wildlife Special Status Animals	B.S. Biology, Colorado State University	21 years, BLM, Wildlife 2 years, BLM, Range
John Martin	Agricultural Economist	Social and Economic Conditions	M.S. Natural Resource Economics, University of Nevada, Reno B.S. Agricultural Business Management, California State Polytechnic University	10 years, BLM, Agricultural Economist 5 years, MMS, Economist 8 years, BLM,Regional Economist 1 year, USDA, Statistician
Fred Minckler	Environmental Specialist	EIS Team Leader	B.S. Fishery Management B.S. Wildlife Management Utah State University	19 years, BLM, Environmental Specialist 2 years, BLM, Fisheries 4 years, NMFS, Fisheries 1 year, SCS, Soils
Kelly Moore	Realty Specialist	Lands	Boise State University, 1 yr, general studies	17 yrs, BLM, Land Law Examiner, Realty Specialist

Name	Position	Responsibility	Education	Experience
Bill Reimers	Rangeland Management Specialist	Vegetation Forestry Wild Horses Livestock Grazing	B.S. Range Management Washington State University	20 years, BLM, Range
Janis Reimers	Ecologist	GIS Data Management	B.S. Environmental Science, Washington State University	9 years, BLM, Ecologist 5 years, BLM, EIS 3 years, BLM, GIS
Jeff Ross	Archaeologist	Cultural Resources	B.A. Anthropology, Appalachian State University	10 years, BLM, Archaeologist 6 years, contract Archaeologist 1 year, USBR, Archaeologist 1 year, USFS, Archaeologist
Kim Schultzmeier	Range Technician	Wild Horses	Boise State University, 2 yrs general studies Boise State College, 2 yrs	21 years, BLM, Range Technician 2 years, BLM, Maintenance 1 year, BLM, Range Aid
Dirk Shupe	Computer Specialist	GIS Data Input and Analysis	B. S. Earth Science Oregon State University	3 years, BLM, GIS 1 year, County Planning
Paul Seronko	Soil Scientist	Soils Air Quality Hazardous Materials	B.S. Soil Science, University of Wisconsin, Stevens Point	19 years, BLM, Soil Scientist 2 years, Wyoming State
Tom Woodward	Geologist	Geology Minerals	M.S. Geology, New Mexico College of Mining and Technology B.S. Geology, Idaho State University	27 years, BLM, Geologist
Judi Zuckert	Recreation Planner/ Wilderness Coordinator	Recreation Wilderness Visual Resources	M.S. Recreation Resources, Colorado State University B.A. Environmental Studies, University of California	5 years, BLM, Recreation/Wilderness 5 years, NPS, Fire Management 10 years, NPS, Park Ranger

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Glossary

ACEC - Area of Critical Environmental Concern
AI&E - Analysis, Interpretation and Evaluation
AML - Appropriate Management Level
AMP - Allotment Management Plan
ATV - All Terrain Vehicle
AU - Animal Unit
AUM - Animal Unit Month
BLM - Bureau of Land Management
BMP - Best Management Practice
BRA - Bruneau Resource Area
CFR - Code of Federal Regulations
DPC - Desired Plant Community
EIS - Environmental Impact Statement
ERMA - Extensive Recreation Management Area
ESC - Ecological Site Condition
ESI - Ecological Site Inventory
FFR - Fenced Federal Range
FMAP - Fire Management Activity Plan
FTE - Full-Time Equivalent
GRA - Geographical Reference Area
HMA - Herd Management Area
HMAP - Herd Management Area Plan
HMP - Habitat Management Plan
IDF&G - Idaho Department of Fish and Wildlife
IMP - Interim Management Policy
MIC - Maintain, Improve and Custodial allotment management categories
MFP - Management Framework Plan
NPS - National Park Service (Department of Interior)
NRCS - Natural Resources Conservation Service (Department of Agriculture), formerly Soil Conservation Service
OHV - Off-Highway Vehicle
OHMV - Off-Highway Motorized Vehicle
ONA - Outstanding Natural Area
PL - Public Law
RMP - Resource Management Plan
RNA - Research Natural Area
ROS - Recreation Opportunity Spectrum
SCORP - Statewide Comprehensive Outdoor Recreation Plan
SOP - Standard Operating Procedure
SRBOPA - Snake River Birds of Prey Area

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SRBOPNCA - Snake River Birds of Prey National Conservation Area
SRMA - Special Recreation Management Area
USF&WS - U.S. Fish and Wildlife Service (Department of Interior)
USFS - U.S. Forest Service (Department of Agriculture)
VRM - Visual Resource Management
WSA - Wilderness Study Area
WSR - Wild and Scenic River

Activity occasions - A standard unit of recreation use consisting of one individual participating in one recreation activity during any reasonable portion, or all, of any one day.

Actual use data - Numbers of livestock, kind and/or class of those livestock and period of time those livestock actually grazed a specific allotment or pasture.

Allotment Management Plan (AMP) - A documented program developed as an activity plan that focuses on, and contains the necessary instructions for, management of livestock grazing on specified public lands to meet resource condition, sustained yield, multiple use, economic and other objectives.

All Terrain Vehicle (ATV) - Small three-wheel and four-wheel recreational vehicles capable of operating off of hard surfaces and in rugged terrain.

Analysis, Interpretation and Evaluation (AI&E) - Once data are collected and compilation is completed, the process of analysis, interpretation and evaluation begins. Measurements or estimates are of no value unless their meaning is defined and presented in understandable terms to the resource manager and permittees. These data may then be used for management and planning purposes, and in particular, for determining the effects of management actions and for determining if management objectives are being achieved.

Animal Unit (AU) - One cow, one cow/calf pair, one horse or five sheep.

Animal Unit Month (AUM) - The forage needed to support one cow, one cow/calf pair, one horse or five sheep for one month. Approximately 800 pounds of forage.

Appropriate Management Level (AML) - the optimum number of wild horses that provides a thriving natural ecological balance on the public range.

Area of Critical Environmental Concern (ACEC) - Areas where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

Band - a group of wild horses running together or a lone wild horse.

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Beneficial use - Any of the various uses which may be made of the water of an area including, but not limited to, agricultural water supply, domestic water supply, industrial water supply, cold water biota, warm water biota, salmonid spawning, primary contact recreation, secondary contact recreation, wildlife habitats and aesthetics.

Best Management Practice (BMP) - A practice or combination of practices determined by the State to be the most effective and practicable means of preventing or reducing nonpoint source pollution.

Commodities - The goods and services produced by industries are classified in terms of one or more product types, or "commodities."

Custodial management - a group of allotments that share similar characteristics where the objective is to manage public lands with minimal expenditure of appropriated funds and continue protecting existing resource values.

Desired Plant Community (DPC) - The plant community which provides the vegetation attributes required for meeting orexceeding RMP vegetation objectives. The desired plant community must be within an ecological site's capability to produce these attributes through natural succession, management actions, or both.

Direct effects - Production changes associated with the immediate effects of final demand changes.

Earnings - Wages and salaries, other labor income and proprietor's income (including inventory valuation and capital consumption adjustments) by place of work.

Ecological Site Condition (ESC) - See ecological status.

Ecological Site Inventory (ESI) - The basic inventory of present and potential vegetation on BLM rangelands. Ecological sites are differentiated on the basis of significant differences in kind, proportion or amount of plant species present in the plant community. Ecological site inventory utilizes soils, the existing plant community and ecological site data to determine the appropriate ecological site for a specific area of rangeland and to assign the appropriate ecological status.

Ecological status - The present state of vegetation of a range site in relation to the potential natural community for that site. It is an expression of the relative degree to which the kinds, proportions and amounts of plants in a plant community resemble that of the potential natural plant community for the site. Four classes are used to express the degree to which the production or composition of the present plant community reflects that of the potential natural community (climax). Departures from climax can enhance or depreciate the value of the resultant plant community for various uses.

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Ecological Status	Percentage of Present (Seral Stage) Plant Community that is Climax for the Range Site
Potential Natural Community	76 - 100
Late Seral	51 - 75
Mid Seral	26 - 50
Early Seral	0 - 25

Edaphic - Relating to the soil, resulting from or influenced by factors inherent in the soil.
Employee compensation: Wages and salaries paid to employees by industries plus the value of benefits, and any contributions to social security and pension funds by the employee and employer.

Excess wild horses - wild free-roaming horses which have been removed from public lands or which must be removed in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in an area.

Extensive Recreation Management Area (ERMA) - Areas where recreation is unstructured and dispersed with minimal regulatory constraints and where minimal recreation related investments are required. The ERMA includes all public land exclusive of SRMAs.

Fenced Federal Range (FFR) - A small amount of public land fenced with a large amount of private land.

Final demand - The ultimate consumers of commodities (goods andservices).

Full Time Equivalent (FTE) - The amount of time worked in one or more jobs equal to a work year.

Geographical Reference Area (GRA) - An area of land with relatively similar climatic and geographic characteristics, resource values and conditions, opportunities for management and capability for resource response to management. Three geographical reference areas have been identified within the Owyhee Resource Area for this RMP effort: the Snake River GRA, the Jordan Creek GRA and the Owyhee River GRA. Boundaries were selected to include the greatest number of common resource conditions, concerns and opportunities. The boundaries are not fixed and may be adjusted based on additional information. See Map LAND-2 for the approximate boundaries.

Gross Domestic Product (GDP) - Measure of value of all domestic production for a given year excluding imports.

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Habitat Management Plan - An activity plan for a geographical area of public land which identifies wildlife habitat management actions to be implemented in achieving specific objectives related to the RMP.

Herd area - the geographic area identified as having provided habitat for a wild horse herd in 1971.

Herd Management Area (HMA) - the geographic area identified in a management framework or resource management plan for the long-term management of a wild horse herd.

Herd Management Area Plan (HMAP) - an action plan that prescribes measures for the protection, management, and control of wild horses and their habitat on one or more herd management areas, in conformance with decisions made in approved management framework or resource management plans.

Herd - one or more wild horse bands using the same general area.

Improve management - a group of allotments that share similar characteristics where the objective is to manage public lands with adequate expenditure of funding and manpower to improve current unsatisfactory resource conditions.

Indirect effects - Production changes in backward-linked industries caused by the changing input needs of directly effected industries (for example, additional purchases to produce additional output).

Induced effects - Changes in regional household spending patterns caused by changes in household income (generated from the direct and indirect effects).

Industry - The manufacturer or provider of goods and/or services. Industries are categorized on the basis of their primary product, though they may produce a range of commodities.

Input-output analysis: A system of double entry accounts showing all transactions of individual enterprises, normally collected into aggregates of like enterprises, with other firms (i.e., sectors) within a given accounting period. Normally within a given "base year" inputs are what a firm (sector) buys, and outputs are what it sells. The entries must balance as the total expenditures of a given sector must equal its total receipts.

Interim Management Policy (IMP) - Policy for managing public lands under wilderness review. Section 603 (c) of FLPMA states: During the period of review of such areas and until Congress has determined otherwise, the Secretary shall continue to manage such lands according to his authority under this Act and other applicable law in a manner so as not to impair the suitability of such areas for preservation as wilderness, subject, however, to the continuation of existing mining and grazing uses and mineral leasing in the manner and degree in which the same was being conducted on the date of approval of this Act: Provided, that, in managing the public lands the Secretary shall by regulation or otherwise take any action required to prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection.

Leakage - The amount of a dollar that leaks out or leaves an area or region to be spent elsewhere rather than remaining to be spent in the area it was generated.

Lek - A site where birds, specifically grouse, regularly congregate for display and courtship purposes.

Maintain management - a group of allotments that share similar characteristics where the objective is to manage public lands with minimal expenditure of appropriated funds and maintain current satisfactory resource conditions.

Management Framework Plan (MFP) - BLM land use land, predecessor to the RMP.

Minimum feasible level of management - the least amount of habitat improvement and population manipulation necessary to meet stated objectives for a herd management area.

Monitoring - the periodic and systematic collection of resource data to measure progress towards achieving objectives.

Multiple use - The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some of the land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the carious resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

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Multipliers: The change in some economic measure resulting from a specified change in some other economic measure.

Net resource value change - The difference in value of planned resource outputs on an area before and after a fire. This figure includes all resource values including range, watershed, wildlife, soils and recreation. This figure is the average dollar value per acre within each fire management zone.

Off-Highway Motorized Vehicle (OHMV) - All motorized vehicles which are capable of being operated off of improved and regularly maintained roads having hardened or gravel surfaces.

Off-Highway Vehicle (OHV) - See Off-Highway Motorized Vehicle

Outstanding Natural Area (ONA) - An area with high scenic values that has been little altered by human impact. Under current BLM policy, outstanding natural areas must meet the relevance and importance criteria of ACECs and are designated as ACECs.

Perennial stream - A stream where water is present during all seasons of the year.

Personal income - Employee compensation plus property income.

Personal income multipliers - The direct, indirect and induced effects (type III multiplier) of a change in direct employment compensation generated by one dollar of final output.

Pesticide - Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Public lands - Any land or interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management.

Recreation Day - Any part of a day spent participating in a given activity.

Recreation Opportunity Spectrum (ROS) - A continuum used to characterize recreation opportunities in terms of setting, activity and experience opportunities.

Recreational river - Rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along the shorelines and that may have undergone some impoundments or diversions in the past.

Research Natural Area (RNA) - An area where natural processes are allowed to predominate and which is preserved for the primary purposes of research and education. Under current BLM policy, research natural areas must meet the relevance and importance criteria of ACECs and are designated as ACECs.

Resource Management Plan (RMP) - A land use plan as described by FLPMA.
Scenic river - Rivers or sections of rivers that are free of impoundments, with shorelines or watersheds largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Section 202 lands - Lands being considered for wilderness under Section 202 of the Federal Land Policy and Management Act of 1976.

Seral stage - See Ecological status.

Snake River Birds of Prey National Conservation Area (SRBOPNCA) - The 482,457 acre area established by Public Law 103-64 on August 4, 1993. The purposes for establishing and managing the area are to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values. There are 57,109 acres within the Owyhee Resource Area.

Special Recreation Management Area (SRMA) - Areas where recreation is one of the principle management objectives; whereintensive recreation management is needed and which require more than minimal recreation related investments. Recreation activities in these areas are generally more concentrated, structured and regulated than in ERMAs.

Statewide Comprehensive Outdoor Recreation Plan (SCORP) - Recreation management plan developed periodically (about 10 years) by the Idaho Department of Parks and Recreation to help Federal, State and local agencies assess recreational use trends and the needs for future management and facilities.

Sustained yield - The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.

Thriving natural ecological balance - the condition of the public range that exists when resource objectives related to wild horses in approved land use and/or activity plans have been achieved.

Trend - The direction of change in ecological status observed over time. Trend is described as toward or away from the potential natural community, or as not apparent.

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Type I multiplier - The Leontief Inverse is a matrix of Type I multipliers -the direct effect (produced by a change in final demand) plus the indirect effect divided by the direct effect. Increased demands are assumed to lead to increased employment and population, with the average income level remaining constant.

Type II multiplier - The sum of the direct, indirect, and induced effects divided by the direct yield Type II multipliers. This is done for a "Closed Model" - households are brought into the transactions matrix as an industry, and the resulting matrix is inverted in the manner as the Open model. The total requirements coefficients for the Closed Model, therefore, include induced effects in addition to direct and indirect effects. Since households are defined as a production sector, the relationship between changes in final demand and household expenditures is linear, in the same way as industrial production functions are linear. The assumption is that an increase in output will raise income levels, and therefore increase household spending proportionately.

Type III multiplier - The Micro IMPLAN Type III multiplier is a modification of the Type III multiplier developed by Miernyk (1965). The IMPLAN Type III compares direct, indirect, and induced effects to the direct effects generated by a change in final demand (direct + indirect + induced, all divided by direct). Type III (Open Model) induced effects are quite different from the induced effects of a Type II multiplier. To minimize the overestimation that occurs with a linear consumption function, IMPLAN estimates Type III induced effects based on the changes in employment and population.

Utilization - The proportion or degree of the current year's forage production that is consumed or destroyed by animals (including insects). Utilization may refer either to a single plant species, a group of species or to the vegetation as a whole. Utilization is synonymous with use.
Value added - The additional or incremental value which is addedto a good or service do to a change in its makeup or service. Value added includes employee compensation, proprietary income, other property type income, and indirect business taxes.

Wild horses - unbranded and unclaimed horses that use public lands as all or part of their habitat, or that have been removed from these lands by the Authorized Officer but have not lost their status under Section 3 of the Wild and Free-Roaming Horse and Burro Act of 1971 (PL 92-195).

Wild river - Rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.
Wilderness Study Area (WSA) - A roadless area that has been inventoried and found to have wilderness characteristics as described in section 603 of FLPMA and section 2(c) of the Wilderness Act of 1964.

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